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Section 0

General Information

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General Information

General Information

Introduction

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (GMC)

5138041

The VIN plate (1) is the legal identifier of the vehicle. The VIN plate is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
		7	United States
2	Manufacturer	G	General Motors
		G	Navistar Inc. (7GZ Only)
3	Vehicle Brand/Type	D	GMC Incomplete Truck
		J	GMC Bus (Non School Bus)
		T	GMC Truck
		Z	GMC Incomplete Truck (Navistar Only)
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van

Position	Definition	Character	Description
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	7/A	GMC Savana, 2500 Cargo
		7/B	GMC Savana, 2500 Cargo EXT
		7/E	GMC Savana, 2500 Passenger LS
		7/F	GMC Savana, 2500 Passenger LT
		7/G	GMC Savana, 3500 Cargo
		7/H	GMC Savana, 3500 Cargo EXT
		7/L	GMC Savana, 3500 Passenger LS
		7/M	GMC Savana, 3500 Passenger LT
		7/N	GMC Savana, 3500 Passenger LS EXT
		7/P	GMC Savana, 3500 Passenger LT EXT
		7/R	GMC Savana, 3500 Cutaway 139" Wheelbase
		7/S	GMC Savana, 3500 Cutaway 159" Wheelbase
		7/T	GMC Savana, 3500 Cutaway 177" Wheelbase
		7/U	GMC Savana, 4500 Cutaway 159" Wheelbase
		7/V	GMC Savana, 4500 Cutaway 177" Wheelbase
		7/9	GMC Savana (Non-US, Non-Canada)
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag – Driver and Passenger – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF — Active Manual belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		7	L8T - ENGINE GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
9	Check Digit	—	Check Digit
10	Model Year	R	2024

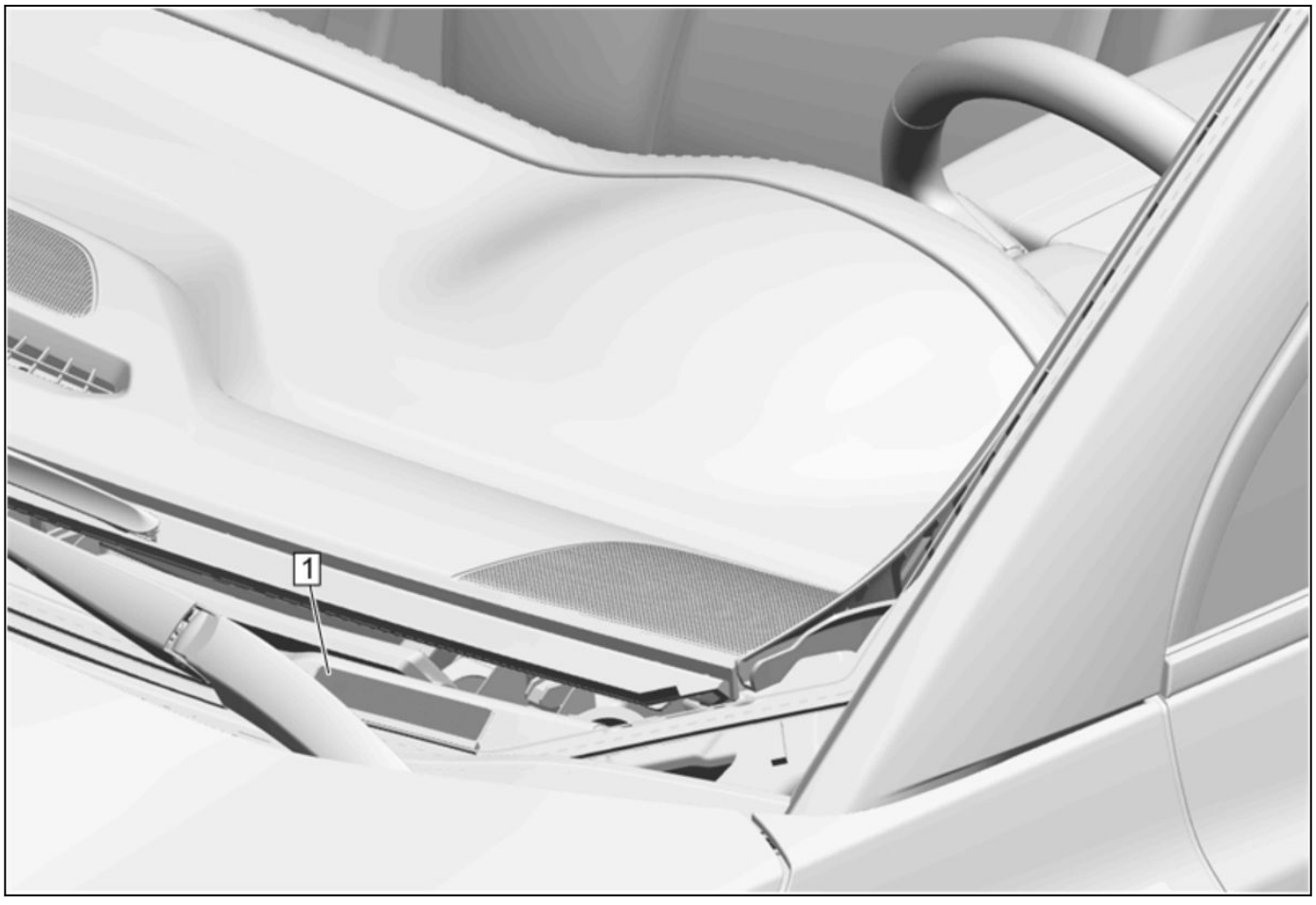
Position	Definition	Character	Description
11	Plant Location	1	Wentzville
		N	Springfield
12–17	Plant Sequence Number	—	Plant Sequence Number

4.3L RPO LV1 Engine ID and VIN Derivative
Location
Engine Identification

6.6L RPO L8T Engine ID and VIN Derivative
Location
Engine Identification

8L90 (M5U) Transmission ID and VIN Derivative
Location
Engine Identification

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (Chevrolet)



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The VIN plate (1) is the legal identifier of the vehicle. The VIN plate is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

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Position	Definition	Character	Description
1	Region of Build	1	United States

Position	Definition	Character	Description
2	Manufacturer	G	General Motors
		H	Navistar Inc.
3	Vehicle Brand/Type	A	Chevrolet Bus (Non School Bus)
		B	Chevrolet Incomplete Truck
		C	Chevrolet Truck
		A	Chevrolet Incomplete Truck (Navistar Only)
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/HydraulicCommercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	G/A	Chevrolet Express, 2500 Cargo
		G/B	Chevrolet Express, 2500 Cargo EXT
		G/E	Chevrolet Express, 2500 Passenger LS
		G/F	Chevrolet Express, 2500 Passenger LT
		G/G	Chevrolet Express, 3500 Cargo
		G/H	Chevrolet Express, 3500 Cargo EXT
		G/L	Chevrolet Express, 3500 Passenger LS
		G/M	Chevrolet Express, 3500 Passenger LT
		G/N	Chevrolet Express, 3500 Passenger LS EXT
		G/P	Chevrolet Express, 3500 Passenger LT EXT
		G/R	Chevrolet Express, 3500 Cutaway 139" Wheelbase
		G/S	Chevrolet Express, 3500 Cutaway 159" Wheelbase
		G/T	4x2, Chevrolet Express, 3500 Cutaway 177" Wheelbase
		G/U	Chevrolet Express, 4500 Cutaway 159" Wheelbase
		G/V	Chevrolet Express, 4500 Cutaway 177" Wheelbase
		G/9	Chevrolet Express (Non-US, Non-Canada)

Position	Definition	Character	Description
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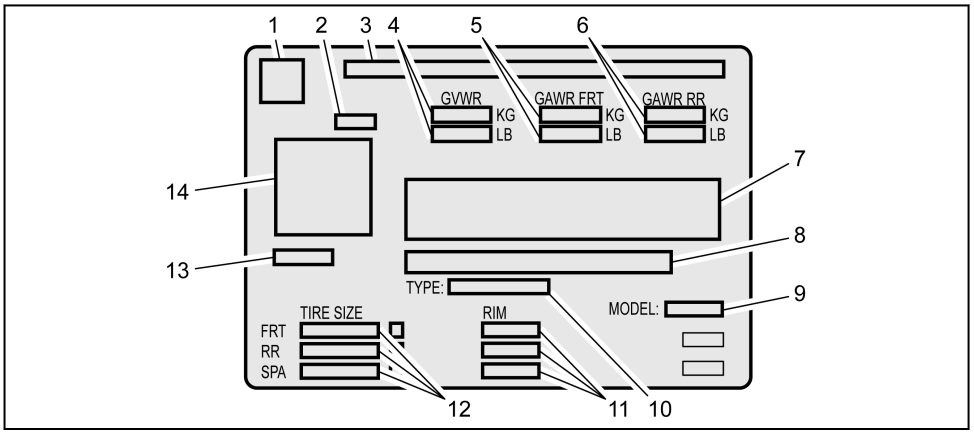
		C	AK5 − Active Manual Belts, Airbag-Driver & Passenger-Front – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF - Active Manual Belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		7	L8T - ENGINE GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
9	Check Digit	—	Check Digit
10	Model Year	R	2024
11	Plant Location	1	Wentzville
		N	Springfield
12–17	Plant Sequence Number	—	Plant Sequence Number

4.3L RPO LV1 Engine ID and VIN Derivative Location
Engine Identification

6.6L RPO L8T Engine ID and VIN Derivative Location
Engine Identification

8L90 (M5U) Transmission ID and VIN Derivative Location
Transmission Identification Information

Vehicle Certification, Tire Placard, and Anti-Theft Label



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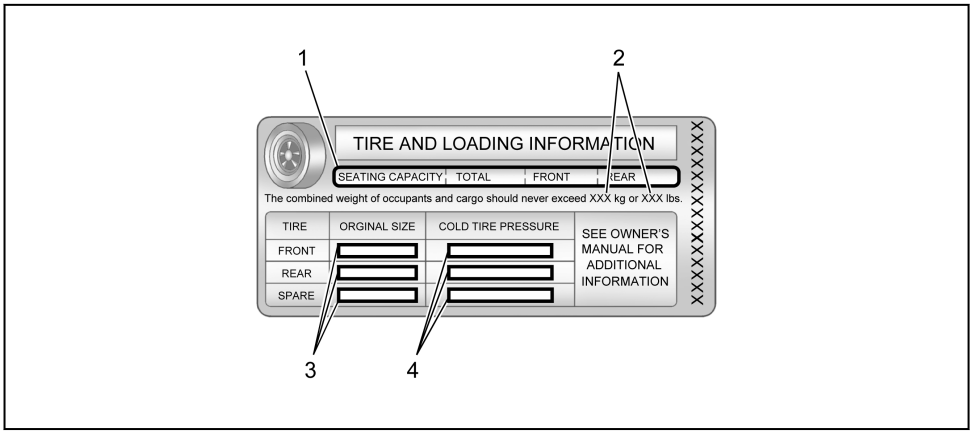
Vehicle Certification Label

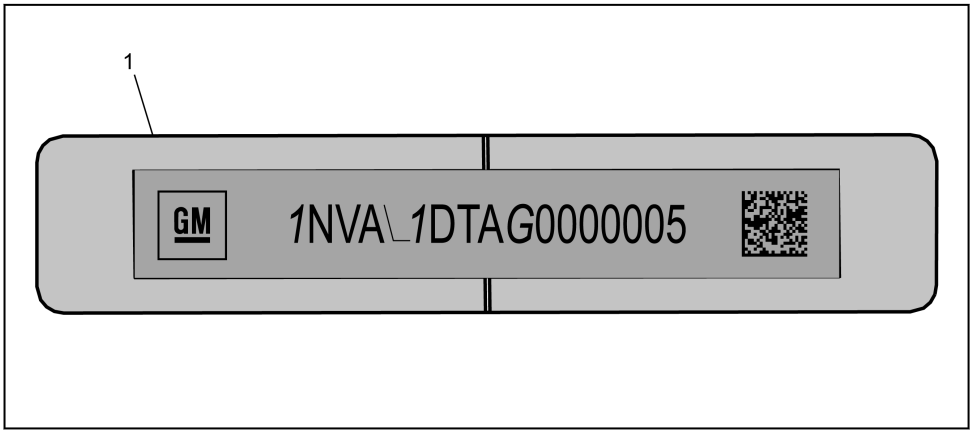
Callout	Description
A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo
2	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
3	Name of Manufacturer
4	Maximum Gross Vehicle Weight Rating (GVWR)
5	Maximum Gross Axle Weight Rating (GAWR) - Front
6	Maximum Gross Axle Weight Rating (GAWR) - Rear
7	Certification Statement
8	Vehicle Identification Number (VIN)
9	Engineering Model Number
10	Vehicle Class Type (Pass Car, etc.)
11	Original Equipment Rim Size
12	Original Equipment Tire Size
13	Paint Code
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)



4962282

Tire Placard

Callout	Description
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Specified Occupant Seating Positions
2	Maximum Vehicle Capacity Weight
3	Original Equipment Tire Size
4	Tire Pressure, Front, Rear, and Spare (Cold)



4962289

Anti-Theft Label

Callout	Description
This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title and registration.	
1	Vehicle Identification Number (VIN)

RPO Code List

The following table provides the description of the Regular Production Option (RPO) codes that are available on the vehicle. The vehicle's RPO list is printed on the Service Parts Identification Label.

RPO	Description
01U	PRIMARY COLOR - EXTERIOR, SPECIAL (02)
40P	WHEEL COLOR - WHITE (91)
52G	TRIM COMBINATION - CLOTH, MED NEUTRAL II (G) (00)
52I	INTERIOR TRIM - MED NEUTRAL II (I) (96)
52W	TRIM COMBINATION - VINYL, MED NEUTRAL II (W) (00)
5AZ	ACCESSORY - SAFETY KIT - UNIVERSAL
5C6	HOOK - CARGO TIE-DN
77S	LABEL, REGULATORY - CALIFORNIA, SECTION 177 STATES
93G	TRIM COMBINATION - CLOTH, MED DK PEWTER II (G) (03) (GMT610 - "G" VAN)
93I	INTERIOR TRIM - MED DK PEWTER II (03) (GMT610 - "G" VAN)
93W	TRIM COMBINATION - VINYL, MED DK PEWTER II (W) (03) (GMT610 - "G" VAN)
9EL	GOVERNOR - VEHICLE TOP SPEED LIMIT - 95 MPH
9L7	EQUIPMENT - ACSRY WRG JUNC BLK
A07	WINDOW - BODY
A08	WINDOW - BODY, RH
A12	WINDOW RR - DR, STA
A13	WINDOW SIDE DR - RR, STA
A17	WINDOW SIDE BODY - SWING OUT, LH
A18	WINDOW RR - DR, SWING OUT
A19	WINDOW SIDE DR - RR, SWING OUT
A31	WINDOW - POWER OPERATED, ALL DOORS
AG1	ADJUSTER FRT ST - POWER, MULTI-DIRECTIONAL, DRIVER
AG2	ADJUSTER PASS ST - POWER, MULTI-DIRECTIONAL
AJ1	WINDOW TINTED - DEEP, ALL EXCEPT W/S AND DRS
AJ3	RESTRAINT SYSTEM - SEAT, INFLATABLE, DRIVER, FRT
AJW	WINDOW STYLE - LAMINATED
AK5	RESTRAINT SYSTEM - SEAT, INFLATABLE, DRIVER & PASS FRT
ANC	SALES PACKAGE - SHUTTLE BUS
AR7	SEAT - FRT BKT, STANDARD
AS5	SEAT - FRT BKT, DELUXE,
ASB	EQUIPMENT - SECURITY BAR, REAR SIDE DOOR
ASF	RESTRAINT - ROOF SIDE (LH & RH), SEAT SIDE (FRONT 1ST ROW), INFLATABLE
AT8	RESTRAINT PROVISIONS - CHILD, RR SEAT, RR FACING

RPO	Description
ATG	LOCK CONTROL, ENTRY - REMOTE ENTRY, STANDARD RANGE
AU3	LOCK CONTROL - SIDE DR, ELEC
AXK	VEHICLE TYPE - TRUCK
AXW	VEHICLE TYPE - BUS- (NOT SCHOOL BUS)
B30	COVERING FLOOR - CARPET
B31	COVERING FLOOR - VINYL, FRT, FULL WIDTH
B32	COVERING FRT - FLOOR MATS, AUX
B33	COVERING REAR - FLOOR MATS, AUX
B38	COVERING FLOOR - VINYL, FRT & RR, FULL WIDTH
B3D	SALES PACKAGE - SCHOOL BUS
BA0	ORNAMENTATION - EXTR, DOOR, NAMEPLATE
BA3	COMPARTMENT - STOWAGE, I/P LOWER EXTENSION DELUXE
BAG	PARTS PKG - EXPORT
BNC	PARTS PKG - BODY MOUNT CUSHIONS
BTV	REMOTE START - VEHICLE
BUE	KIT - EXHAUST DIESEL
C36	HEATER - AUXILIARY
C42	HVAC SYSTEM - HEATER, OUTSIDE AIR, DELUXE
C49	DEFOGGER - RR WINDOW, ELECTRIC
C4K	GVW RATING - 9,925 LBS
C4M	GVW RATING - 9,900 LBS/4,500 KG
C60	HVAC SYSTEM - AIR CONDITIONER FRT, MAN CONTROLS
C69	HVAC SYSTEM RR - AIR CONDITIONER
C6P	GVW RATING - 8,600 LBS/3,900 KG
C6Y	GVW RATING - 9,600 LBS
C7I	GVW RATING - 14,200 LBS.
C7N	GVW RATING - 12,300 LBS
C99	SWITCH - INFL RST I/P MDL MAN SUPPRESSION
CGN	LINER - PUBX, SPRAY ON
CK2	COUNTRY - YEMEN
CU7	COUNTRY - KUWAIT
CV3	COUNTRY - MEXICO
CV4	COUNTRY - ISRAEL
CV8	COUNTRY - IRAQ
CX9	COUNTRY - LEBANON
CY2	COUNTRY - JORDAN
D28	MIRROR O/S - (-NONE)
D31	MIRROR I/S R/V - TILT

RPO	Description
D3S	COUNTRY - QATAR
D4C	COUNTRY - BAHRAIN
DAA	SUNSHADE - VINYL
DE5	MIRROR O/S - LH & RH, REMOTE CONTROL, ELECTRIC, HEATED, FOLDING, COLOR.
DH6	MIRROR I/S FRT VAN - LH & RH, SUNSHADE, ILLUM
DHC	MIRROR O/S - LH & RH, MANUAL CONTROL, AUX WFOV, COLOR
DNS	EQUIPMENT - SUPPLIER INSTALLED
DRJ	MIRROR I/S R/V - TILT, PARTIAL VIDEO DISPLAY
DSB	EQUIPMENT - SECURITY BAR DELETE, REAR SIDE DOOR
E24	DOOR SIDE - REAR, HINGED
E48	COVER - RADIATOR GRILLE OPG - COLD CLIMATE
E6H	COUNTRY - OMAN
EF7	COUNTRY - UNITED STATES OF AMERICA (USA)
ENC	HVAC PROVISIONS - AUXILLIARY HEATER PLUMBING & WIRING
EXP	EXPORT -
FE9	CERTIFICATION - EMISSION, FEDERAL
FHO	VEHICLE FUEL - GASOLINE E10
G7C	PRIMARY COLOR - EXTERIOR, PULL ME OVER RED SOLID (130X)
G7K	EQUIPMENT - ANTENNA, CABLE AND GROUNDPLATE
G80	AXLE POSITRACTION - LIMITED SLIP
GAN	PRIMARY COLOR - EXTERIOR, SWITCHBLADE SILVER MET (G) 636R
GAZ	PRIMARY COLOR - EXTERIOR, SUMMIT WHITE (G) 8624
GBA	PRIMARY COLOR - EXTERIOR, BLACK (G) 8555
GT4	AXLE REAR - 3.73 RATIO
GT5	AXLE REAR - 4.10 RATIO
GU6	AXLE REAR - 3.42 RATIO
IVR	VEHICLE - VRIDE
J24	ENGINEERING YEAR - 2024
JFF	GVW RATING - 10,100 LBS
JH6	BRAKE - HYD POWER, 4 WHL DISC
JH9	BRAKE - HYD POWER, 4 WHL DISC, 14,200 LBS
JL4	CONTROL, - ACTIVE BRAKE
K05	HEATER ENG - BLOCK
K34	CRUISE CONTROL - AUTOMATIC, ELECTRONIC

RPO	Description
K50	FUEL - FITTING, LINE TAKE-OFF
K68	GENERATOR - 105 AMP
KC4	COOLING SYSTEM - ENG OIL
KD1	COOLING SYSTEM - TRANS, OIL
KG4	GENERATOR - 150 AMP
KI4	RECEPTACLE I/P - ELECTRICAL, 110 VOLT
KUP	THROTTLE CONTROL - ELECTRONIC
KW5	GENERATOR - 220 AMP
KYK	GOVERNOR - VEHICLE TOP SPEED LIMIT - 100 KPH
L8T	ENGINE - GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
LV1	ENGINE - GAS, 6 CYL, 4.3L, GEN 5, SIDI, V6, VVT, OHV, ALUM
MTF	PROVISIONS - FIRE EXTINGUISHER MOUNTING
MTH	TRANSMISSION - AUTO 8 SPD, 8L80, GEN 2
N33	STEERING COLUMN - TILT TYPE
N8X	TRANSMISSION - AUTO 8 SPD, 8L90, GEN 2
NAV	PLANT CODE - NAVISTAR, SPRINGFIELD, OH, USA
NCF	LOCK - CHILD SECURITY FEATURE - NONE
NE1	CERTIFICATION - EMISSION, GEOGRAPH-ICALLY RESTRICTED REGISTRATION
NE7	FUEL TANK - 216L, 57 GAL
NE8	EVAPORATIVE SYSTEM - LEVEL 3 EMISSIONS
NHT	PERFORMANCE PACKAGE - ENHANCED TOWING
NP5	STEERING WHEEL - LEATHER WRAPPED
NPL	PLATE - NAME - NONE
NRW	EMISSION SYSTEM - CALIFORNIA, SULEV170
NTB	EMISSION SYSTEM - FEDERAL, TIER 3
NUM	EMISSION SYSTEM - CALIFORNIA, LEV3 MDV 10-14K GVW
P03	COVER, WHEEL - VAR 3
PNC	PANEL - TRIM, FRT DOORS & SI RR DOOR(S) & RR DOORS
PPC	PANEL - TRIM, RR DOORS
QB5	WHEEL - 16 X 6.5, J, STEEL
QT4	WHEEL - 16 X 6.5, STEEL H.D.
R04	WHEEL CONFIGURATION - RR, SINGLE
R05	WHEEL CONFIGURATION - RR, DUAL
R25	APPEARANCE PACKAGE - EXTERIOR, CHROME GRILLE & PAINTED BUMPER
R26	APPEARANCE PACKAGE - EXTERIOR, CHROME GRILLE & FRONT BUMPER
RDI	ACCESSORY - KEYLESS ENTRY
RVG	ACCESSORY - ADAPTER - TRAILER HARNESS
RYT	ACCESSORY - FIRST AID KIT
RYY	ACCESSORY - FLOOR MATS - MOLDED VINYL
RZW	ACCESSORY - HARNESS - TRAILER HITCH
S08	ACCESSORY - HIGHWAY SAFETY KIT
S52	ACCESSORY - MOLDED HOOD PROTECTOR - SMOKED
S6N	ACCESSORY - RECEIVER COVER - TRAILER HITCH
SDD	ACCESSORY - TRAILER HITCH - FIXED
SDI	ACCESSORY - TRIANGLE - REFLECTIVE
SDS	ACCESSORY - WEATHER DEFLECTORS - SIDE WINDOW - SMOKED
SFE	ACCESSORY - WHEEL LOCKS
SFV	ACCESSORY - WIRELESS NETWORK INTERFACE MODULE
T74	CONTROL, HEADLAMPS - AUTOMATIC, DELAY
TGA	LANGUAGE CONTROL - ENGLISH, FRENCH, SPANISH
TGG	LANGUAGE CONTROL - ENGLISH, ARABIC, FRENCH
TP3	BATTERY - 770 CCA & 770 CCA (DUAL)770 CCA & 770 CCA (DUAL)
TR9	LAMP GROUP -
U05	HORN - DUAL
U0F	RADIO - AM/FM STEREO, CAF, RSA, MUSIC NAVIGATOR, GRAPHICS
U0H	RADIO - AM/FM STEREO, USB, GMNA
U19	SPEEDOMETER - INST, KILO & MILES, KILO ODOMETER
U2J	DIGITAL AUDIO SYSTEM - S-BAND - NONE
U2K	DIGITAL AUDIO SYSTEM - S-BAND
U73	ANTENNA - FIXED, RADIO
U80	DISPLAY - COMPASS
UA1	BATTERY - HIGH CAPACITY, WET
UA7	THEFT DETERENT SYS - EXPORT SPECIFIC, VAR #02
UC2	SPEEDOMETER - INST, KILO & MILES, KILO ODOMETER, POSITIVE BIAS
UD4	ALARM - VEHICLE SPEED, 120 K/H (DON'T USE AFTER 2010 ON NEW MAJORS - USE CTY COD &/OR VCS FAM COD INSTEAD)
UD7	PARK ASSIST - REAR

RPO	Description
UE0	COMMUNICATION SYSTEM - VEHICLE - NONE
UE1	COMMUNICATION SYSTEM - VEHICLE, ONSTAR
UEU	SENSOR INDICATOR - FORWARD COLLISION ALERT
UF3	SWITCH - HIGH IDLE
UFA	DISPLAY - OUTSIDE TEMPERATURE
UFL	LANE ACTIVE SAFETY - DEPARTURE WARNING
UFT	SIDE ACTIVE SAFETY - OBSTACLE DETECTION
UJ1	INDICATOR - SYSTEM, BRAKE WARNING
UJM	TIRE PRESS INDICATOR - MANUAL LEARN
UL2	FREQUENCIES - EUROPEAN
UL8	FREQUENCIES - SAUDI ARABIAN
USR	RECEPTACLE - USB
UTJ	THEFT DETERENT - ELECTRICAL, UNAUTHORIZED ENTRY
UTN	PROVISIONS - UPFITTER CONTROL AND MONITORING
UVC	VISION - REAR VIEW, MONO, ANALOG
UY7	WIRING HARNESS - TRUCK TRAILER, HD
V10	PROVISION OPTIONS - COLD WEATHER
V22	GRILLE - RADIATOR, CHROME
V37	BUMPER - FRT & RR, CHROME
V46	BUMPER FRT - CHROME
V4D	CALIBRATION - SEPARATED STOP/TURN SIGNAL CIRCUITS
V78	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - NO CERT STATEMENT (ENGLISH TEXT)
V87	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - GULF STATES ORGANIZATION
V8C	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - NO CERT STATEMENT (SPANISH TEXT)
V8D	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - U.S. FMVSS
V8E	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - CANADA CMVSS
V8I	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - ISRAEL FMVSS
VBX	LANGUAGE LABEL - ARABIC
VC5	LABEL - SHIPPING, EXCEPT US, US POSSESSIONS, OR JAPAN
VG8	VEHICLE - LABEL, NOTICE TO BUYER
VH6	BUMPER FRT - BLACK
VJG	BUMPER RR - BLACK

RPO	Description
VK3	LICENSE PLATE FRONT - FRT MOUNTING PKG
VK5	SEAT - TEMPORARY, FOR SHIPPING
VLU	ACCESSORY - SECURITY SCREEN PACKAGE - REAR WINDOW W/O POP - OUT
VP6	NOISE CONTROL -
VPH	VEHICLE PREPARATION - OVERSEAS DELIVERY
VQK	ACCESSORY - SPLASH GUARDS - CUSTOM MOLDED
VR4	TRAILER HITCH - WEIGHT DISTRIBUTING PLATFORM
VR6	HOOK - TIE-DN SHPG
VT7	OWNERS MANUAL - ENGLISH LANGUAGE
VXT	VEHICLE TYPE - INCOMPLETE
VXW	ACCESSORY - ASSIST STEPS - MOLDED
W1Y	CONTROL - STEERING WHEEL, RADIO, REDUNDANT CONTROLS
WEN	PLANT CODE - WENTZVILLE, MO, USA
WMY	VIN MODEL YEAR - 2024
X88	MARKET BRAND - CHEVROLET
XHF	TIRE FRONT - LT225/75R16 E 115/112 S BL ALS
XL7	FREQUENCIES RATING - 315 MHZ, LONG DISTANCE
XL8	FREQUENCIES RATING - 433 MHZ
XLP	TIRE FRONT - LT245/75R16 E 120/116 S BW ALS
Y3H	SALES PACKAGE - HANDICAPPED, MOBILITY, PARATRANSIT
YA2	DOOR SIDE - REAR, SLIDING DOOR, MANUAL
YB9	PAINT PROCESS - INTERIOR - NONE
YC6	PACKAGE, CONVENIENCE - DECOR LEVEL #6
YF1	SALES PACKAGE - CUTAWAY UPFITTER
YF2	SALES PACKAGE - AMBULANCE UPFITTER
YF5	CERTIFICATION - EMISSION, CALIFORNIA
YHF	TIRE REAR - LT225/75R16 E 115/112 S BL ALS
YLP	TIRE REAR - LT245/75R16 E 120/116 S BW ALS
YM8	IDENTIFICATION - LIMITED PERSONALI-ZATION OPTION (LPO)
Z49	COUNTRY - CANADA
Z82	TRAILER PROVISIONS - SPECIAL EQUIPMENT, H.D.
Z88	MARKET BRAND - GMC

RPO	Description
ZHF	TIRE SPARE - LT225/75R16 E 115/112 S BL ALS
ZLP	TIRE SPARE - LT245/75R16 E 120/116 S BW ALS
ZP0	SEATING ARRANGEMENT - TEMPORARY DRIVER
ZP3	SEATING ARRANGEMENT - 15 PASS
ZP6	SEATING ARRANGEMENT - 5 PASS CARGO
ZQ2	SALES PACKAGE - DRIVER CONVENIENCE
ZQ3	SALES PACKAGE - DRIVER CONVENIENCE II
ZR7	APPEARANCE PACKAGE - GRILLE & BUMPER CHROME
ZW2	WINDOW PKG - RR DRS
ZW3	WINDOW PKG - RR DRS, SIDE RR DR
ZW4	WINDOW PKG - RH SIDE, RR DRS
ZW6	WINDOW PKG - COMPLETE BODY
ZW9	BODY EQUIPMENT - BASE BODY OR CHASSIS
ZX1	SEATING ARRANGEMENT - DRIVER ONLY, HIGH BACK
ZX2	SEATING ARRANGEMENT - DRIVER & PASS, HIGH BACK
ZX5	SEATING ARRANGEMENT - 12 PASS
ZX9	TIRE SPARE - W/WHEEL - NONE
ZY1	COLOR COMBINATION - SOLID (MEDIUM DUTY ONLY)

Section 1

Body Systems

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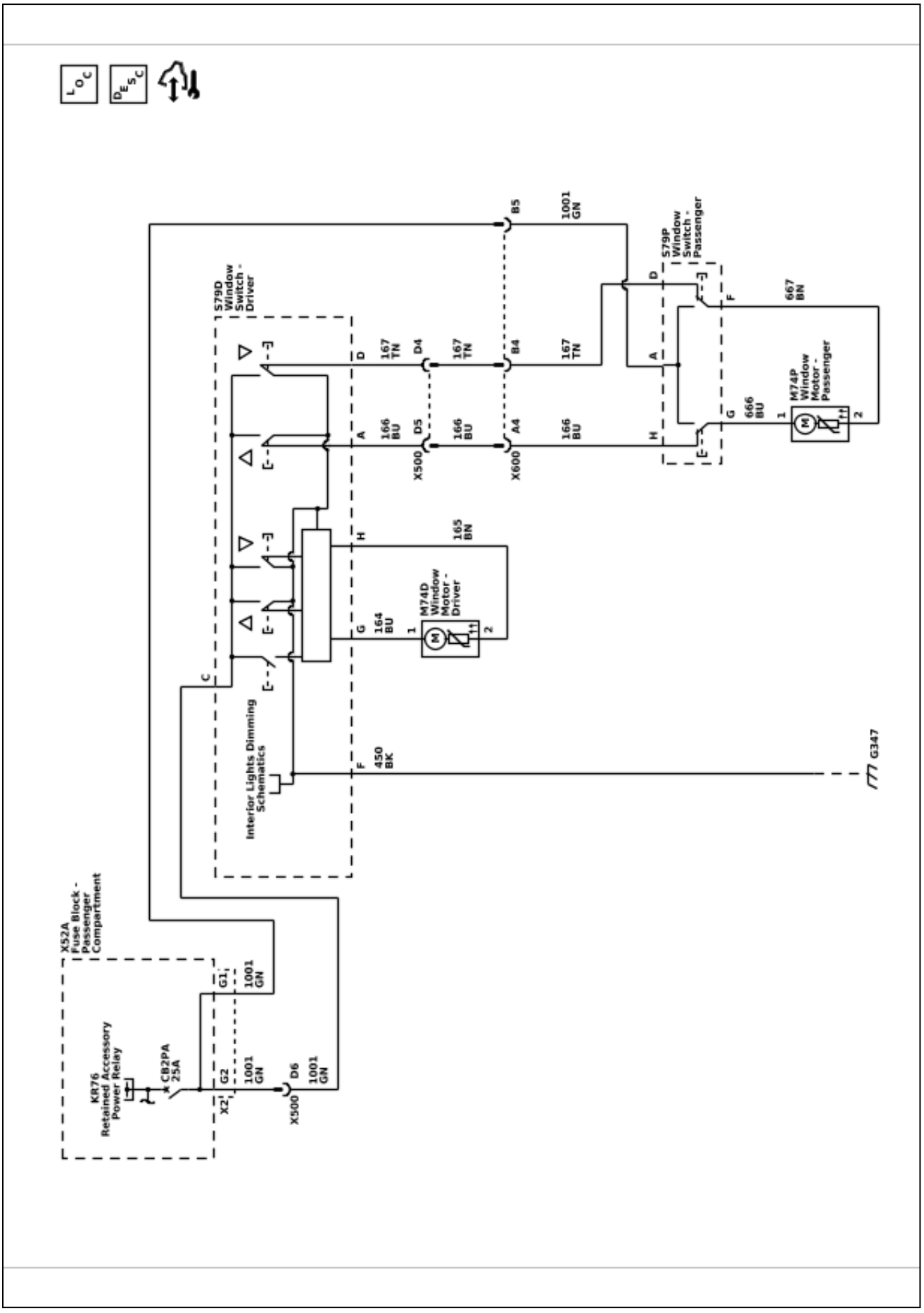
Body Systems

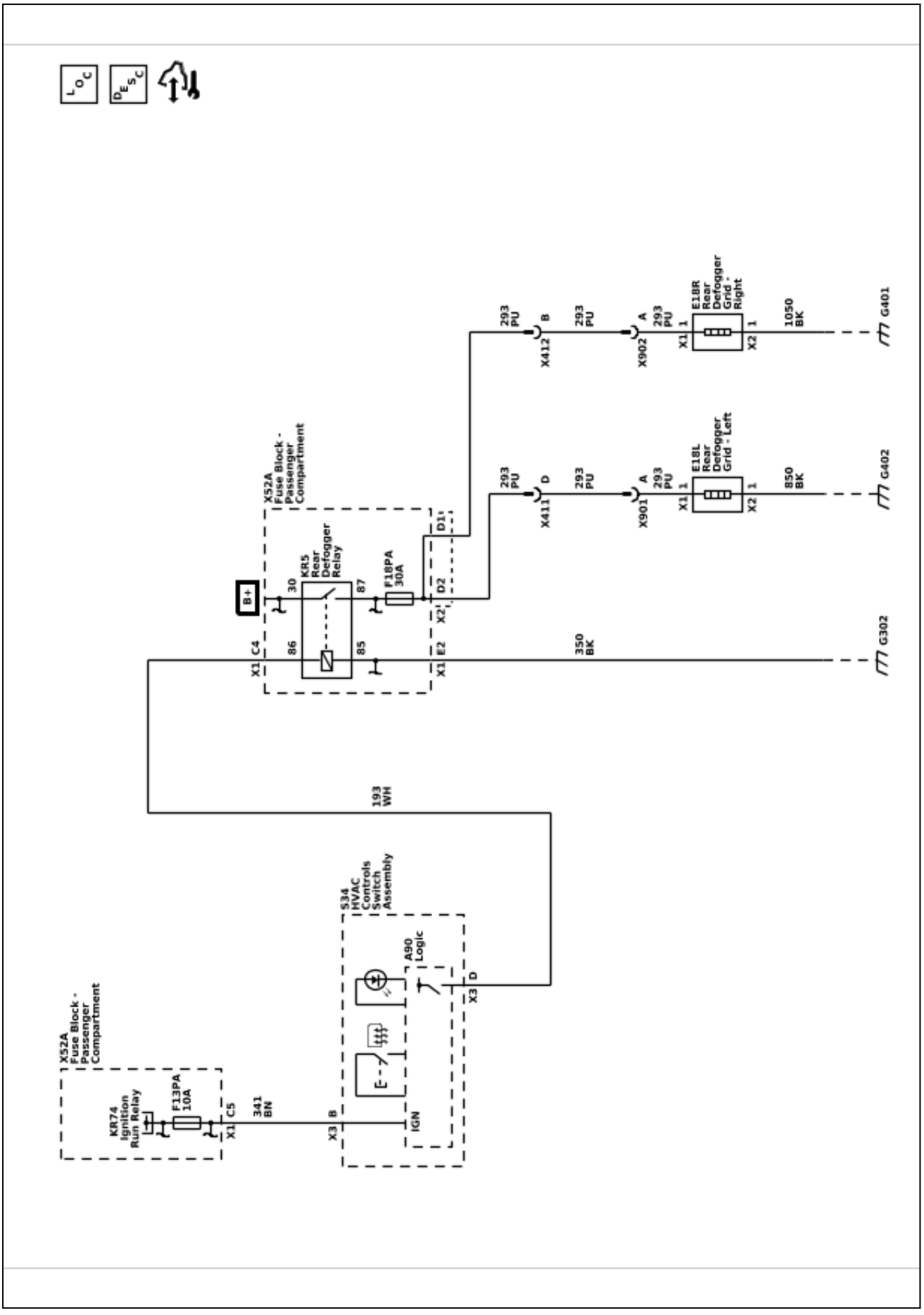
Fixed and Moveable Windows

Schematic and Routing Diagrams

Moveable Window Schematics (Moveable Windows (A31))



Defogger Schematics (Defogger (C49))



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Description and Operation

Power Windows Description and Operation

Power Window System Components

The power window system consists of the following components:

- LF power window master switch
- RF power window switch
- Reversible power window motors in each of the doors (circuit breaker protected)
- PWR WNDW 25A circuit breaker

Power Window System Controls

The power window system will operate anytime the ignition switch is in the ACCY or ON position or when RAP is activated.

The LF power window master switch can control the up and down functions of both the windows in the vehicle. The passenger door power window switch can only control the up and down functions of the passenger window.

Power Window Motor Operation

A permanent magnet motor operates each of the power side windows. Each motor raises or lowers the glass when the motor receives voltage. The direction the motor turns depends on the polarity of the supply voltage. The power window switches control the polarity of the supply voltage. A built-in circuit breaker protects each motor. The circuit breaker opens when the switch is depressed for a extended period of time under the following conditions:

- The window has an obstruction.
- The window is fully open or fully closed.

The circuit breaker will reset automatically as the circuit breaker cools.

Power Window Operation

The normally closed contacts of the switch are connected to ground and the center pole is connected to the accessory voltage circuit. By placing the left power window switch in the down position, voltage is applied to the power window motor left front down circuit and to the power window motor. The other side of the power window motor is connected to ground through the normally closed contacts of the left power window switch through the power window motor left front up circuit and drives the window down.

By placing the power window switch in the up position the polarity of the motor is reversed and the motor drives the window up.

Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC control assembly
- Rear window defogger relay
- Rear window defogger grid

Rear Window Defogger Operation

When you turn the ignition to the ON position, battery positive voltage is supplied through the HTD MIR DEFOG fuse to the rear window defogger relay switched input. Ground is for the rear window defogger relay coil is provided by G302. Battery positive voltage and ignition voltage is supplied to the HVAC control assembly for rear window defogger operation. When the rear window defogger switch is depressed, the HVAC control assembly energizes the rear window defogger relay by supplying battery positive voltage to the rear window defogger relay coil. This allows battery positive voltage from the relay switched input through the switch contacts and out the relay switched output to the rear window defogger grids. The HVAC control assembly also illuminates the rear window defogger indicator upon this request. Ground for the left rear window defogger grid is provided by G401. Ground for the right rear window defogger grid is provided by G402.

When you turn ON the ignition and press the rear window defogger switch for the first time, the defogger cycle lasts 10 minutes. Further operation results in 5 minute defogger cycles. The defogger cycle resets to 10 minutes when you cycle the ignition to the OFF position and then back to the ON position.

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

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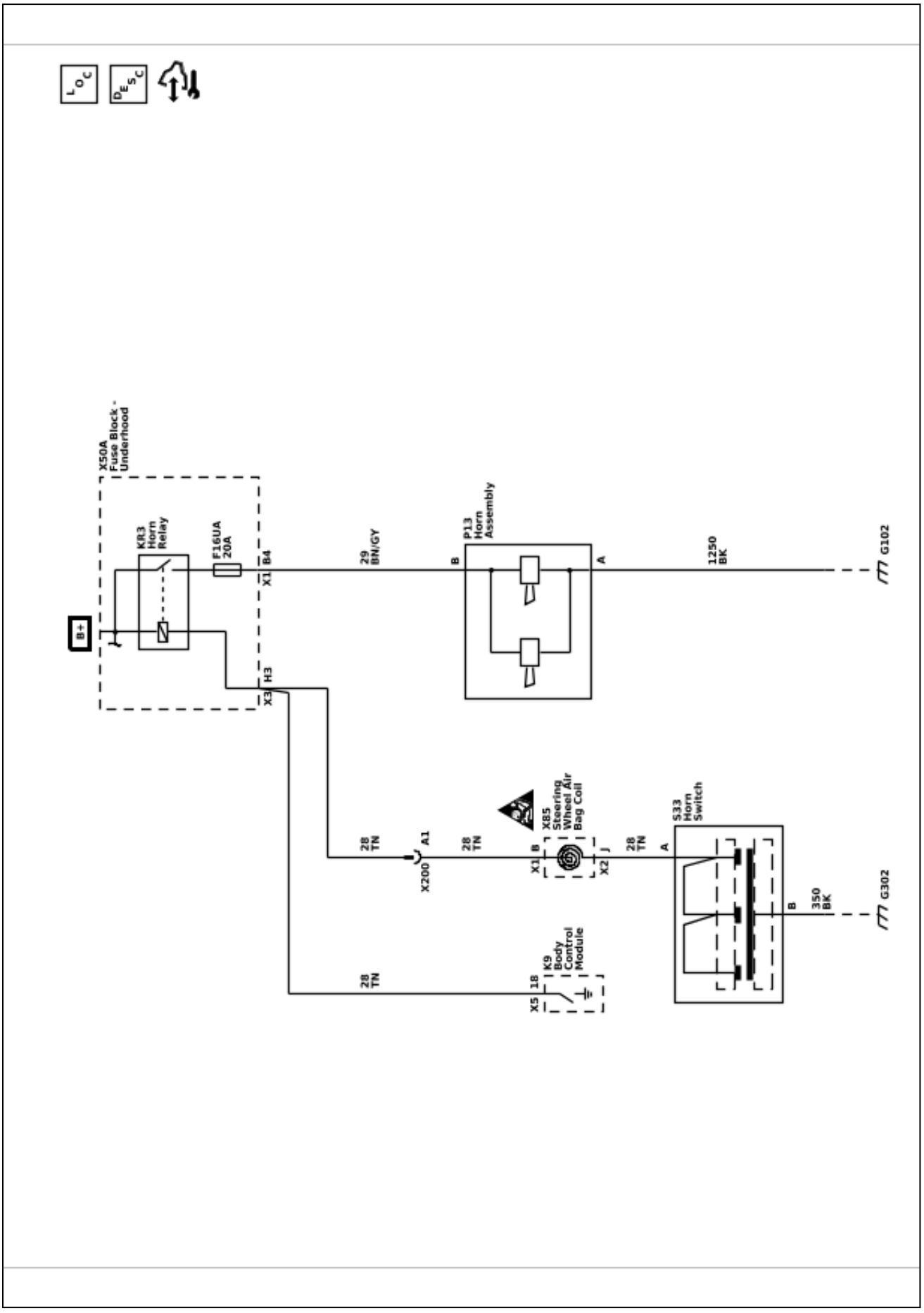
Horn Schematics (Horn Schematics)



Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- The HORN fuse
- The Horn relay
- The Horn Contact
- The Horn Assembly
- Body Control Module (BCM)

System Operation

- The vehicle horns are activated whenever the horn switch is depressed.
- The BCM commands the horns ON under any of the following conditions:
  - When the panic button is depressed on the remote control door lock transmitter. For further information refer to *Keyless Entry System Description and Operation 6-8*.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to *Keyless Entry System Description and Operation 6-8*.

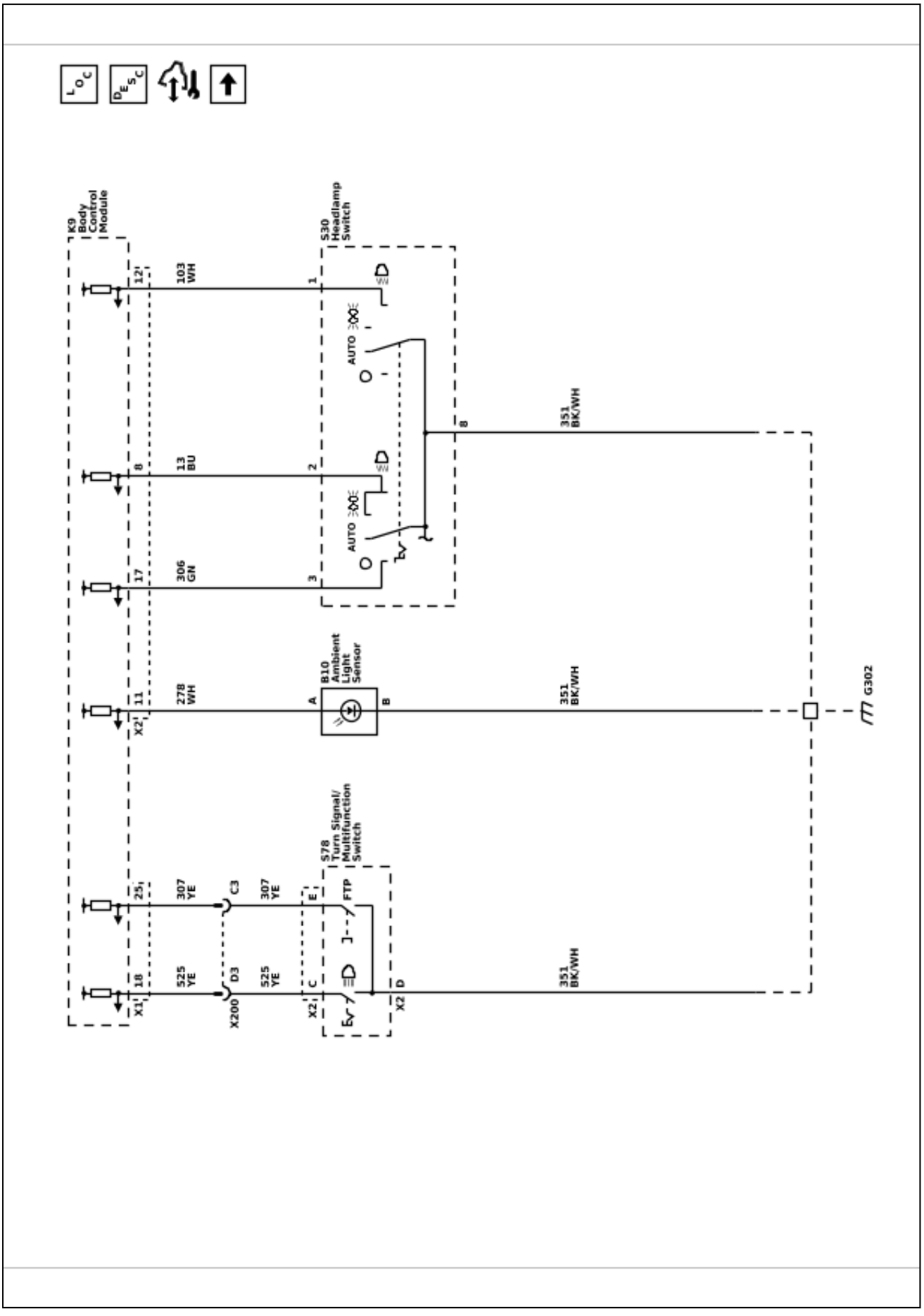
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing the horn switch applies ground to the horn relay control circuit. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

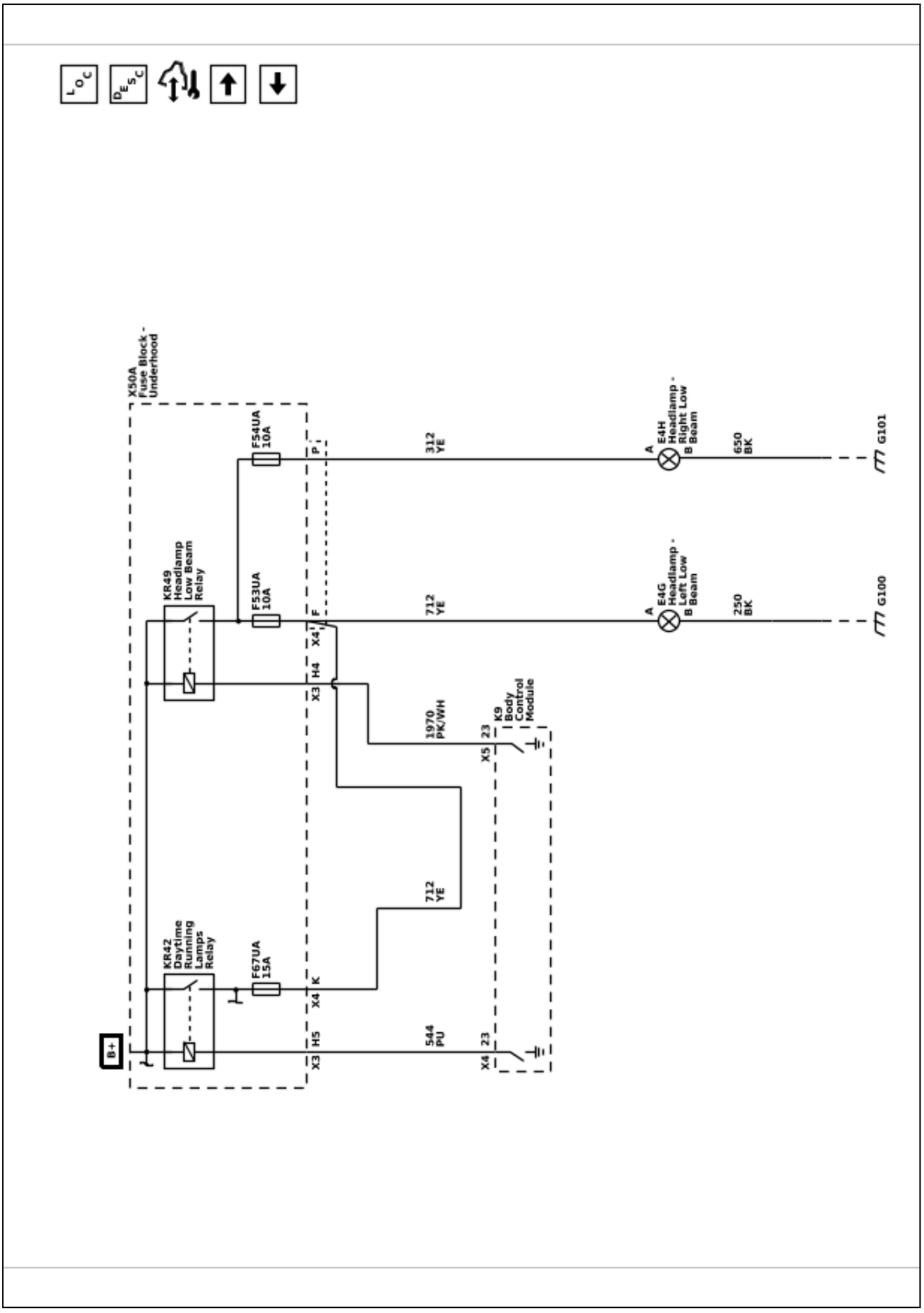
Lighting

Schematic and Routing Diagrams

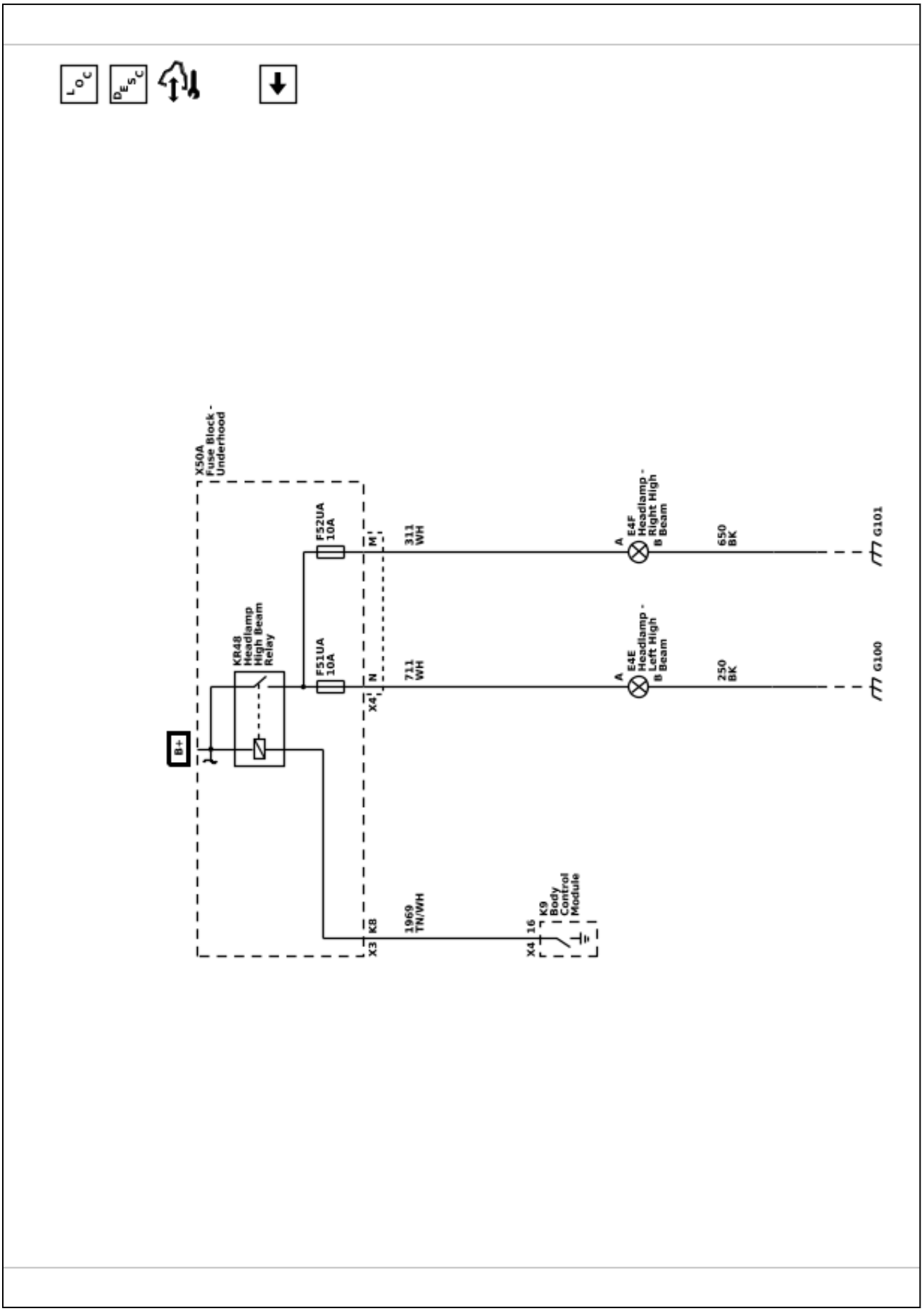
Headlights/Daytime Running Lights (DRL) Schematics (Headlamp and Daytime Running Lamp Controls)



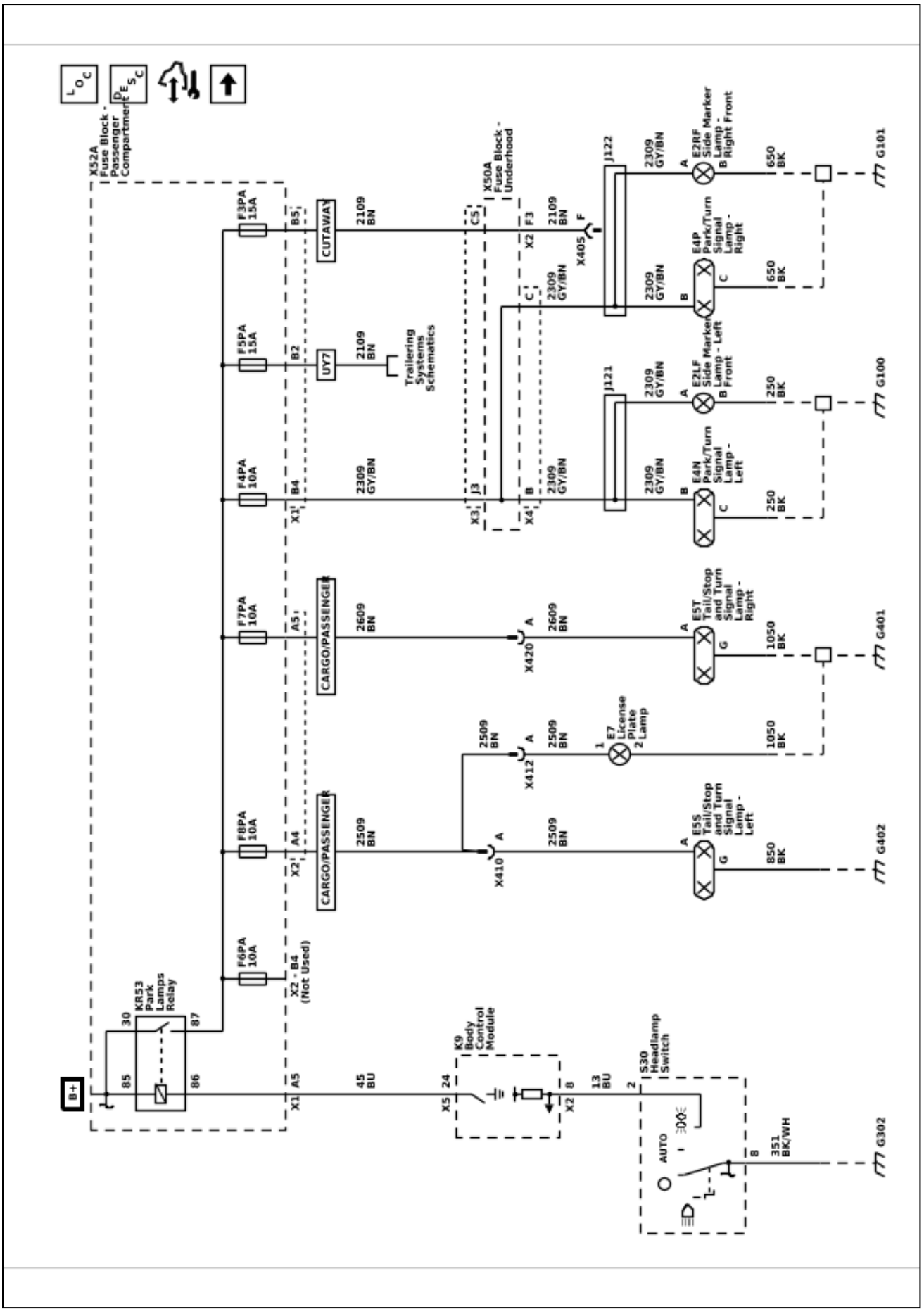
Headlights/Daytime Running Lights (DRL) Schematics (Low Beam and Daytime Running Lights)



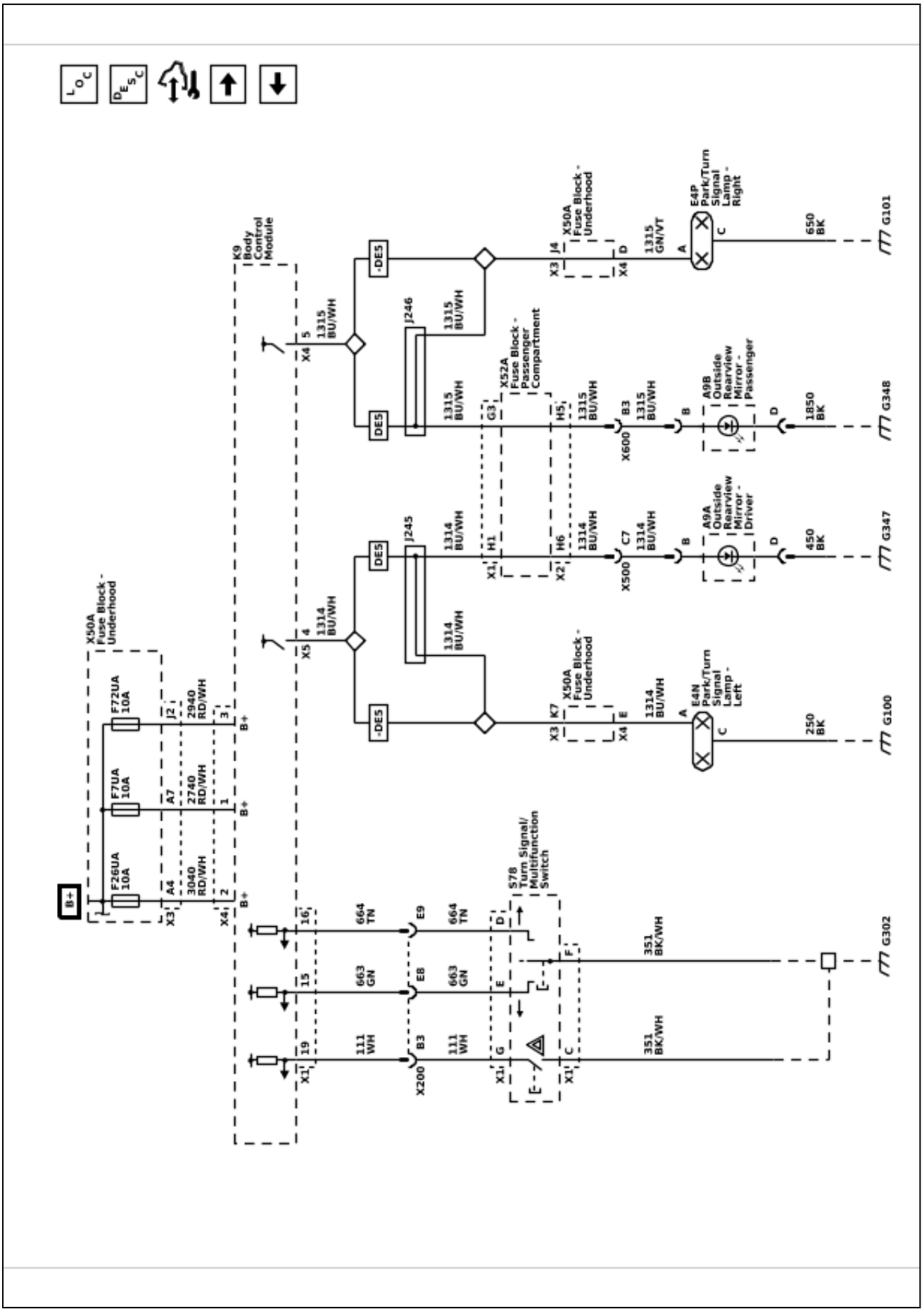
Headlights/Daytime Running Lights (DRL) Schematics (High Beams)



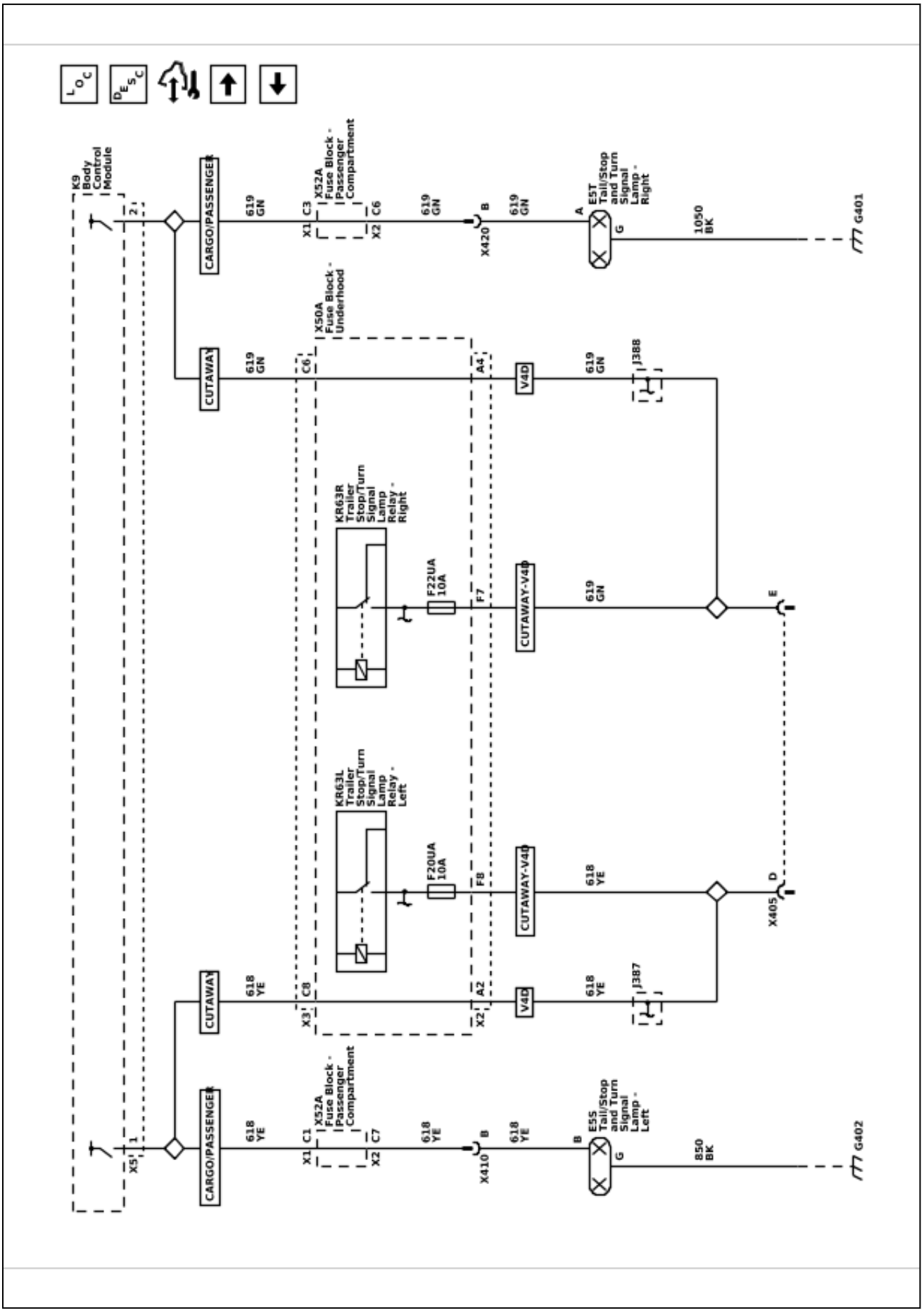
Exterior Lights Schematics (Park Lamp Controls and Park Lamps)



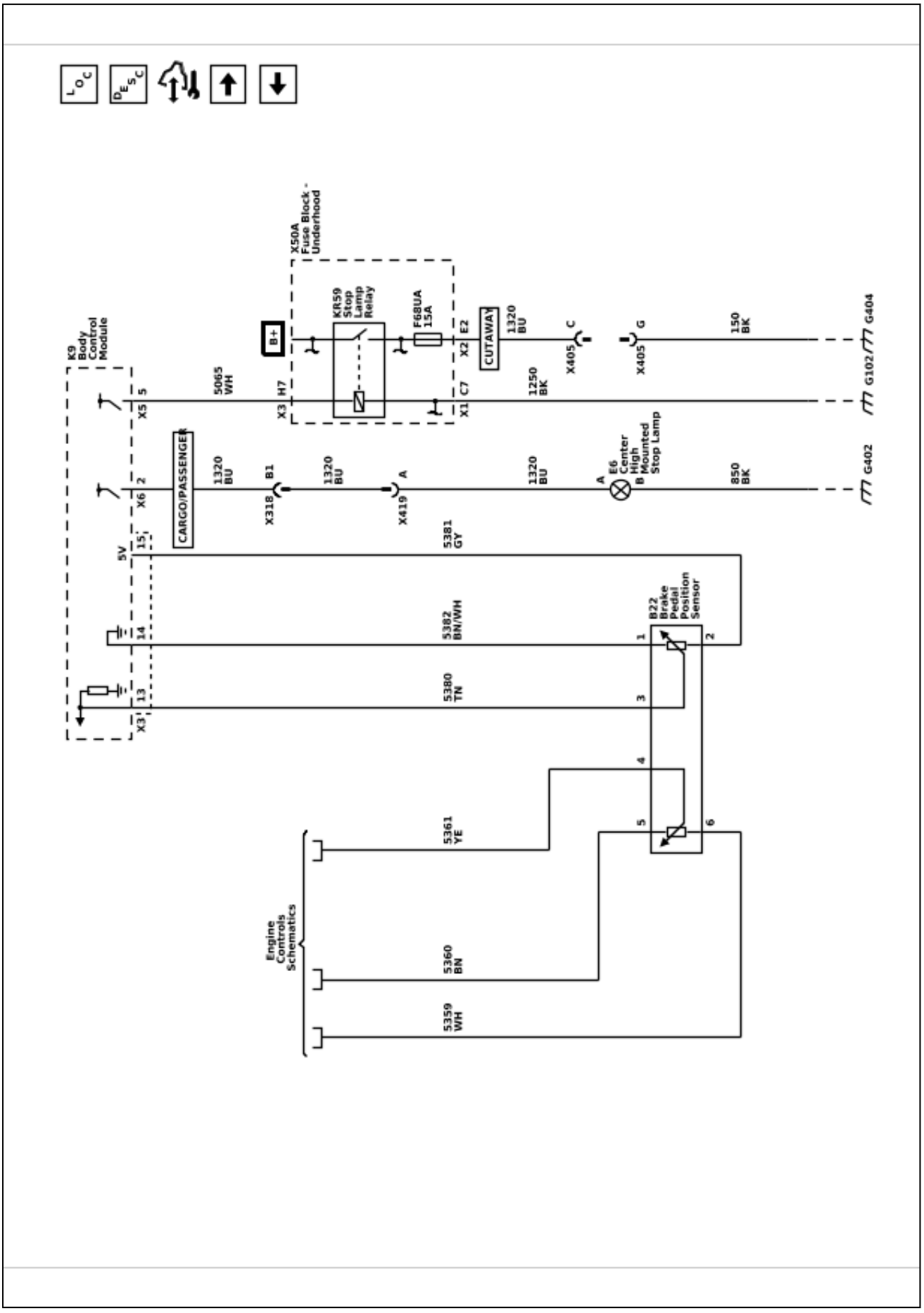
Exterior Lights Schematics (Turn Signal Controls and Front Turn Signal Lamps)



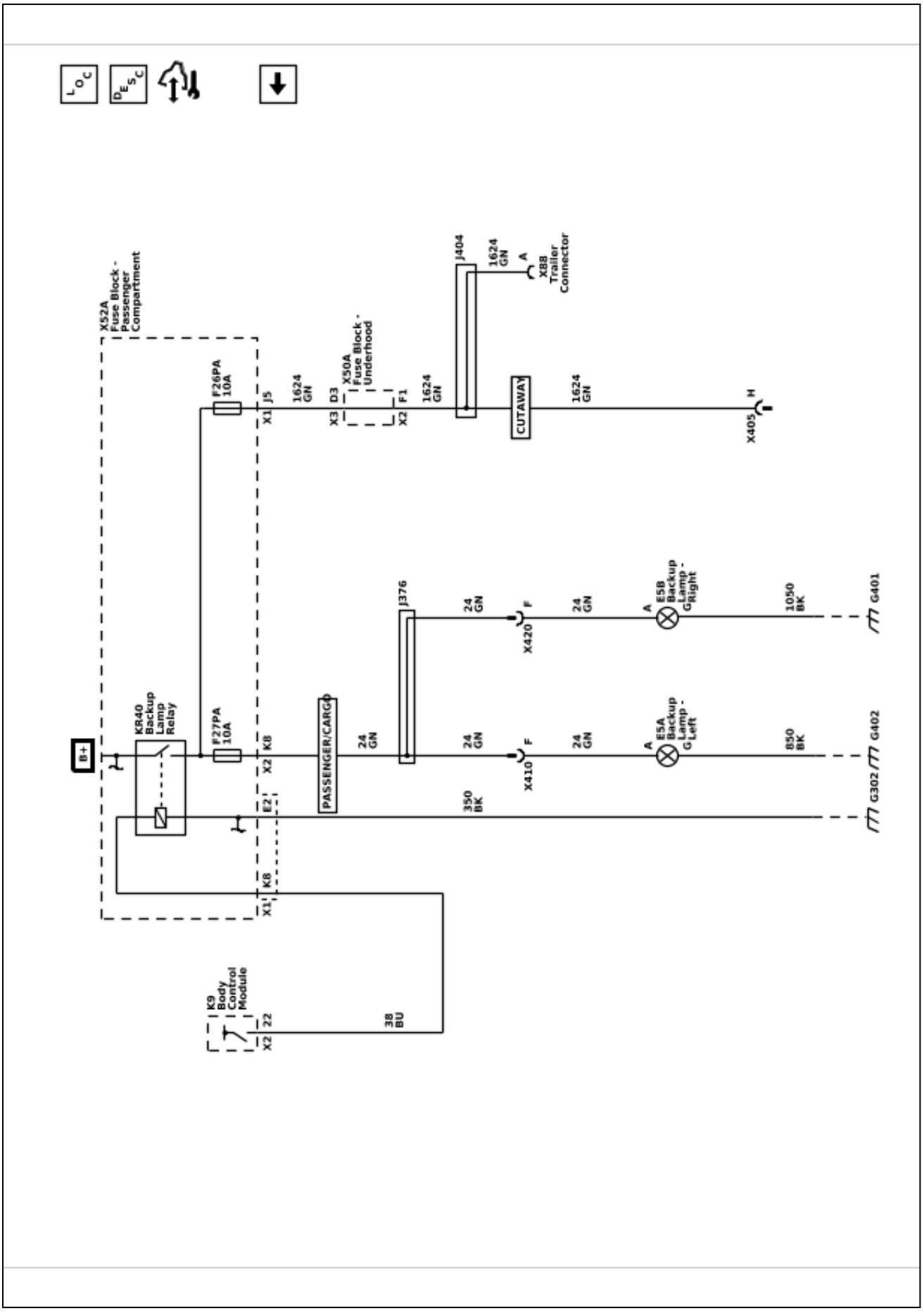
Exterior Lights Schematics (Rear Turn Signal Lamps)



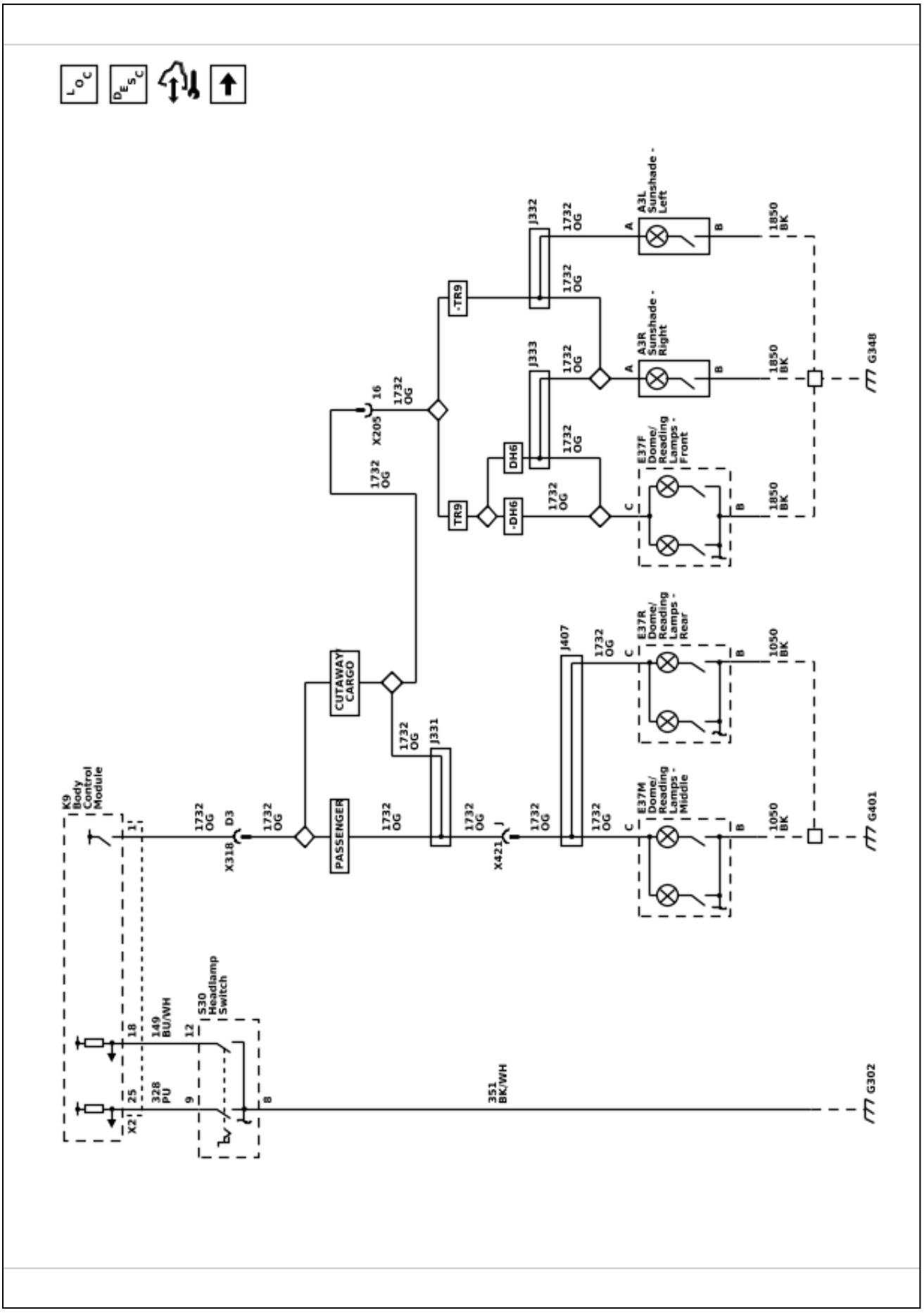
Exterior Lights Schematics (Stop Lamp Controls and CHMSL)



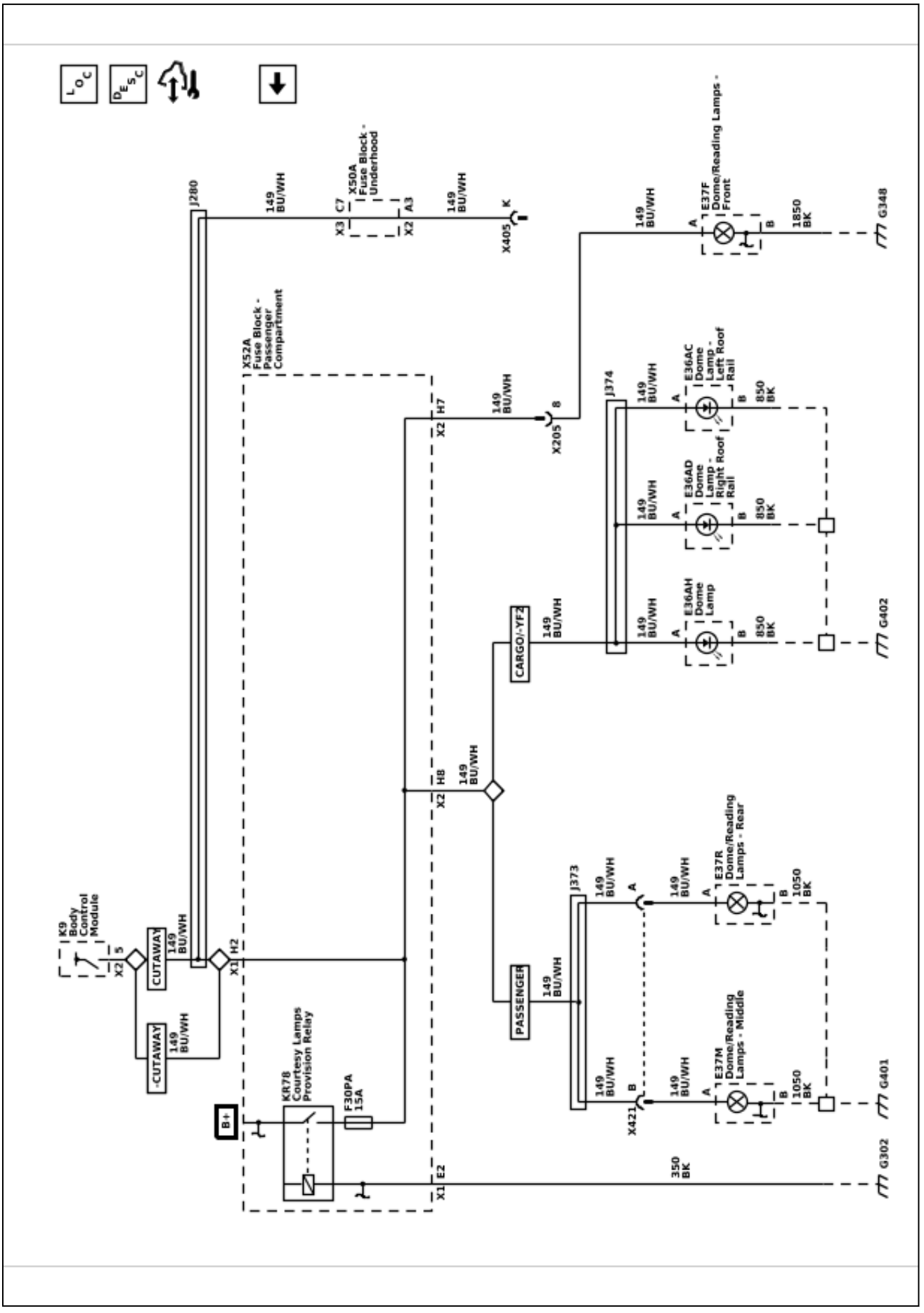
Exterior Lights Schematics (Backup Lamps)



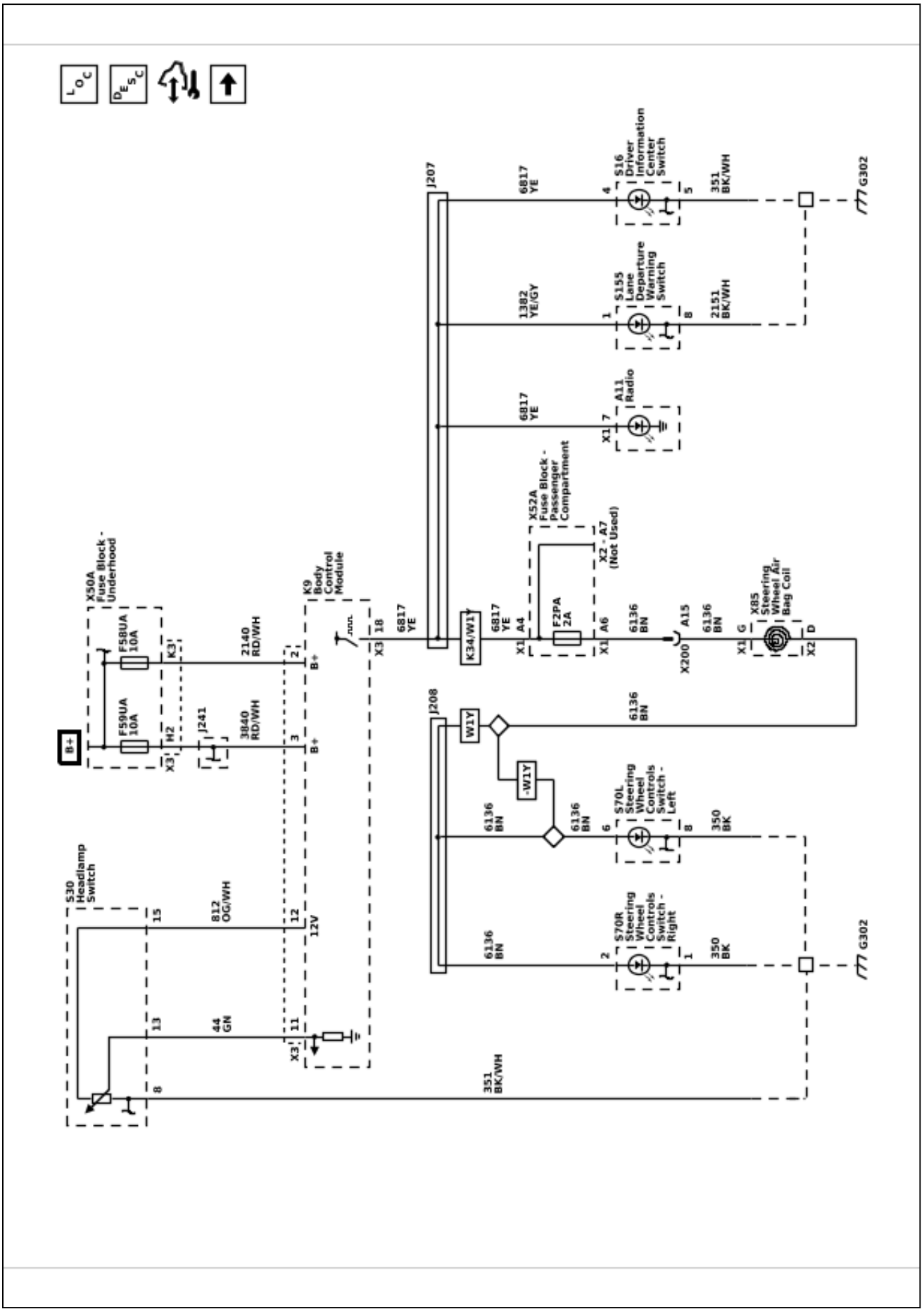
Interior Lights Schematics (Inadvertent Lamp Control)



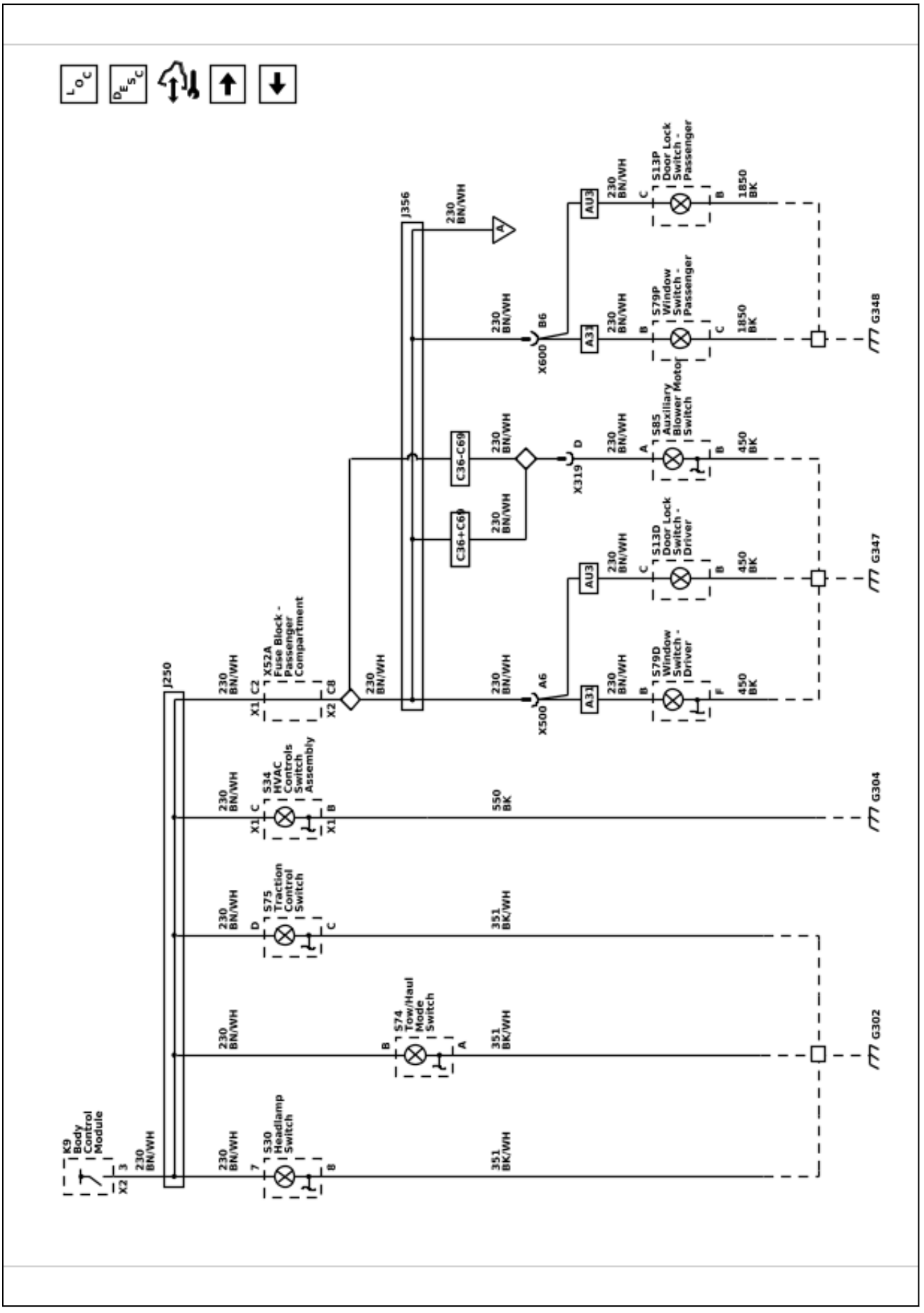
Interior Lights Schematics (Courtesy Lamp Control)



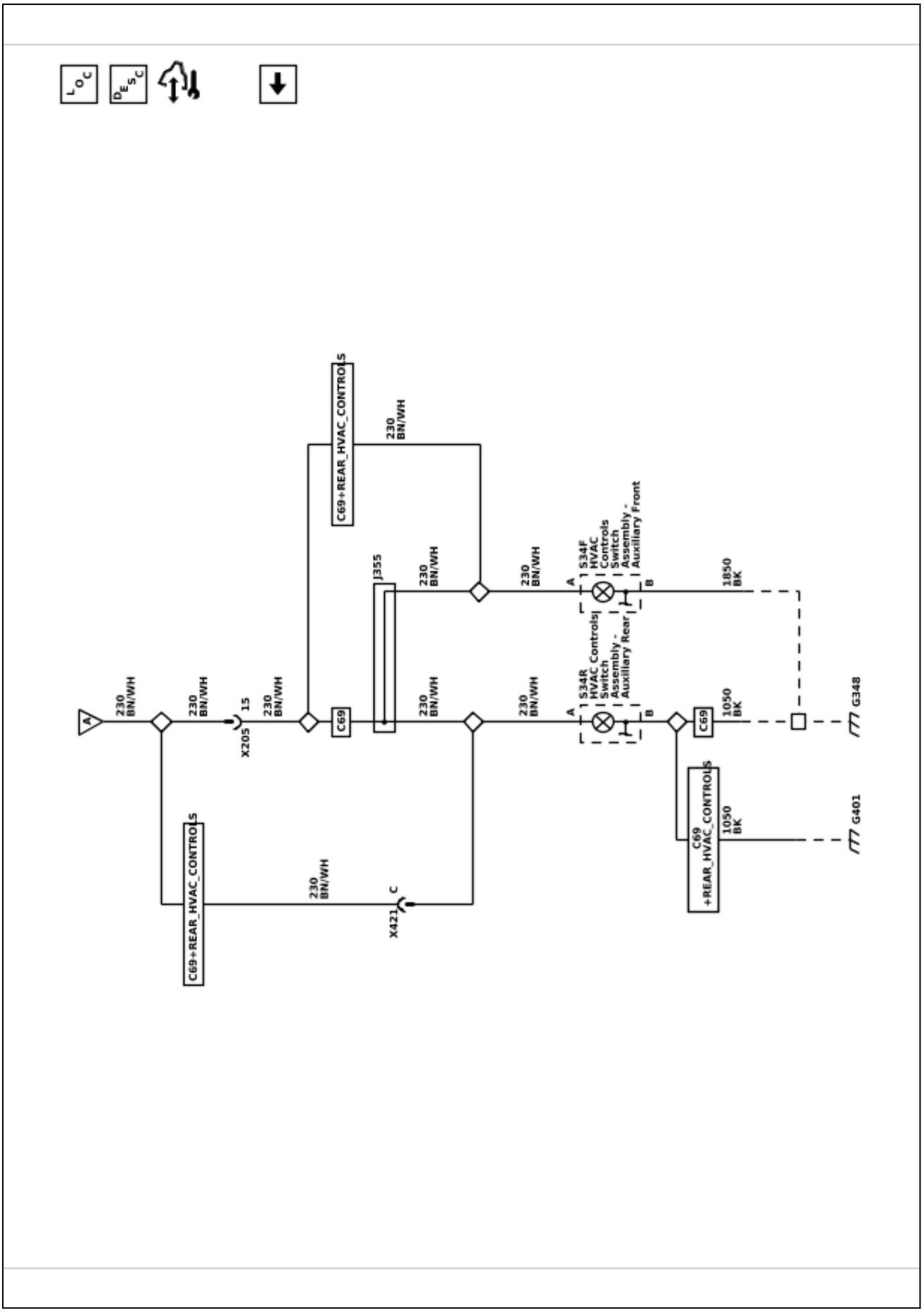
Interior Lights Dimming Schematics (Dimming Controls and LED Dimming)



Interior Lights Dimming Schematics (I/P Bulb Dimming - 1 of 2)



Interior Lights Dimming Schematics (I/P Bulb Dimming - 2 of 2)



Description and Operation

Exterior Lighting Systems Description and Operation

Exterior Lamps

The exterior lighting consist of the following lamps:

- Headlamps
- Daytime running lamps (DRL)
- Park lamps
- Tail lamps
- License lamps
- Marker lamps
- Turn signal lamps
- Stop lamps
- Center high mounted stop lamp (CHMSL)
- Backup lamps
- Trailer Lamps

Low Beam Headlamp Operation

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch in the HEAD position for normal operations
- When the headlamp switch is in the AUTO position, for automatic lamp control (ALC)
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

Battery voltage is applied at all times to the coil and switch sides of the LOW BEAM PCB Relay located in the underhood fuse block. With the headlamp switch in the headlamps ON position, ground is applied through the headlamps ON switch signal circuit to the body control module (BCM) signaling the headlamps ON request. In response to this signal, the BCM applies ground through the low beam relay control circuit energizing the LOW BEAM PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT LOW BEAM fuses, and the low beam supply voltage circuits illuminating the low beam headlamps.

High Beam Headlamp Operation

Battery voltage is applied at all times to the coil and switch sides of the HIGH BEAM PCB Relay located in the underhood fuse block. When the headlamp dimmer switch is placed in the high beam position, the headlamp dimmer switch signal circuit to the BCM is pulled low signaling the headlamp high beam request. In response to this signal, the BCM applies ground through the high beam relay control circuit energizing the high beam relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT HIGH BEAM fuses, and the high beam supply voltage circuits illuminating the high beam headlamps. At the same time the BCM sends a serial data message to the instrument panel cluster (IPC) requesting the IPC to illuminate the high beam indicator.

Flash to Pass (FTP)

When the headlamp dimmer switch is pulled toward the driver, the flash to pass signal circuit to the BCM is pulled low signaling the flash to pass request. The BCM then turns ON the high beam headlamps as described above until the headlamp dimmer switch is released. If the low beam headlamps were ON during FTP operation they will remain ON.

Daytime Running Lamps (DRL) and Automatic Lamp Control (ALC)

The low beam headlamps are used for DRL operation at a reduced intensity. The DRLs will operate only with the ignition ON, the headlamp switch in the AUTO position, and the gear selector out of the park position. No other exterior lamps such as the parking lamps, tail lamps, etc. will be on when the DRL are being used. The instrument panel will not be illuminated either.

DRL operation is determined by the ambient light sensor and controlled by the body control module (BCM). The ambient light sensor is a light-sensitive transistor used to monitor outside lighting conditions. The BCM provides a 5-volt reference signal to the sensor. The sensor will vary this voltage signal between 0.2 and 4.9 volts depending on outside lighting conditions. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either DRL or ALC operation. When the BCM determines the conditions are met for DRL operation, it applies ground to the DRL relay control circuit energizing the DRL PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the DRL 1 fuse, the DRL 2 fuse, both low beam headlamp fuses, and the low beam supply voltage circuits illuminating the headlamps at a reduced intensity. Any function or condition that turns on the headlamps will cancel DRL operation.

When the BCM detects low light conditions, it will turn OFF the daytime running lamps and turn ON the low beam headlamps as described above in Low Beam Headlamp Operation. The BCM will also turn ON the low beam headlamps in daylight conditions when the windshield wipers are turned ON.

HDLPS Suggested Indicator

If the park lamps are turned ON manually and the ambient light sensor detects a low light condition then the body control module (BCM) will send a message to the instrument panel cluster (IPC) to display the HEADLAMPS SUGGESTED message.

Lights ON Warning

The body control module (BCM) activates the lights ON warning as requested by the headlamp dimmer switch. The lights ON warning sounds when the following occurs:

- The key is out of the ignition.
- The BCM determines that the drivers door is open, signal is low.
- The BCM determines that the headlamp switch is in the PARK or HEAD position.

Park, Tail, Marker and License Lamps

The park, tail, and marker lamps are turned ON when the headlamp switch is placed in either the HEAD or PARK lamp positions, or anytime the automatic light control (ALC) turns the headlamps ON. When the headlamp switch is placed in the park lamp or headlamp positions, ground is applied through the switch signal circuit to the BCM indicating the park lamp ON request. In response to this signal, the BCM applies ground through the park lamp relay control circuit energizing the PRK LAMP Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the park lamp fuses, and the supply voltage circuits illuminating the park, license, side marker, and tail lamps.

Turn Signal Lamps

The BCM 3, BCM 5, and BCM 6 fuses located in the underhood fuse block supply battery voltage to the body control module (BCM) for turn signal, hazard lamp, and stop lamp operation. Voltage from the BCM 5 fuse used for the front and rear left turn signals, voltage from the BCM 3 for the right front turn signal, while voltage from the BCM 6 fuse is used for the right rear turn signal. When the turn signal switch is place in either the LEFT or RIGHT position, ground is applied through the turn signal switch signal circuit to the BCM indicating the turn signal request. In response to this signal, the BCM applies a pulsating voltage to the front and rear turn signal lamps supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a message via to the instrument panel cluster (IPC) to cycle the turn signal indicator ON and OFF depending on the position of the turn signal switch.

Hazard Lamps

The hazard flashers may be activated in any power mode. When the hazard lamp switch is placed in the ON position, ground is applied through the hazard switch signal circuit to the body control module (BCM) indicating the hazard lamps ON request. In response to this signal, the BCM applies a pulsating voltage though all front and rear turn signal supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a serial data message to the instrument panel cluster (IPC) to cycle both turn signal indicators ON and OFF.

Stop Lamps (cargo/passenger)

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5-volt reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the right and left stop lamp control circuits, transmission control module (TCM), engine control module (ECM), center high mounted stop lamp (CHMSL) control circuit, and trailer brake control module if equipped.

Stop Lamps (cutaway)

The BCM controls the stop lamps based on the input from the stop lamp switch. When the BCM detects the brake pedal is depressed, B+ is applied to the stop lamp relay control circuit energizing the Stop Lamp PCB Relay. With the relay energized, B+ is applied to the stop/turn lamp supply voltage circuits illuminating both stop lamps.

Backup Lamps

When the gear selector is placed in the REVERSE position, the powertrain control module (PCM) sends a serial data message to the BCM indicating the backup lamps ON request. The BCM then applies battery voltage through the backup relay control circuit energizing the BCK/UP LAMP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the T/LAMP BCK/UP fuse, the AUX/TRLR BCK/UP fuse and the supply voltage circuits illuminating the left and right backup lamps and the backup alarm. The engine may need to be running for the backup lamps to function.

Trailer Lamps

Backup Lamps

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the K9 Body Control Module (BCM). The message indicates that the gear selector is in the reverse position. The BCM responds by applying voltage to the KR40 Backup Lamp Relay control circuit. With the backup lamp relay energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuse to the trailer backup lamp control circuit which illuminates the trailer backup lamp(s). Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit. The engine must be running for the backup lamps to operate.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the K9 Body Control Module (BCM). The BCM responds by applying ground to the KR53 Park Lamps Relay control circuit. With the park lamp relay energized, the relay switch contacts close and battery voltage is applied through the park lamp fuse to the trailer park lamp control circuit which illuminates the trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The K9 Body Control Module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM responds by applying ground to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse's to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the K9 Body Control Module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating ground to the appropriate left or right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left or right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left or right trailer stop/turn signal fuse to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Interior Lighting Systems Description and Operation

The interior lighting consist of two groups; lamps that may not be manually dimmed (Interior Lamps) and lamps that may be dimmed (Interior Lamps Dimming).

The first group listed below includes lamps that may not be dimmed:

- Front dome/reading lamps
- Middle dome/reading lamps
- Rear dome/reading lamps
- Sunshade Mirror Lamps
- Underhood Lamp

Interior Lamps Features

The interior lamps system features the following functions:

- An illuminated entry feature that illuminates the courtesy lamps when entering the vehicle or activating the remote keyless entry system.
- An illuminated exit feature that illuminates the courtesy lamps when the ignition key has been removed from the ignition.
- An inadvertent power feature that supplies voltage to all interior lamps after the ignition is turned OFF. The inadvertent power feature will deactivate all interior lamps after 10 minutes to prevent battery rundown.

- A theater dimming feature that will slowly dim the interior lamps from full brightness to OFF.
- Individual switches for control of each interior lamp that is not illuminate with the interior lamp switch.

Courtesy Lamps (−YF2/YF7)
When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps (+YF2/YF7)
When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage to the courtesy lamp relay control circuit energizing the UPFITTR CTSY LAMPS PCB Relay. With the relay energized. battery voltage is applied through the switch side of the relay and the supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps Manual Operation
The courtesy lamps can be manually turned ON by the IP dimmer switch. When the dimmer switch is placed in the DOME position, ground is applied through the dimmer switch and the courtesy lamp switch ON signal circuit to the BCM indicating the courtesy lamps ON request. In response to this signal, the BCM then applies battery positive voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps listed above. The courtesy lamps ON operation of the dimmer switch will override any BCM operation of the interior lamps already in progress.

Keyless Entry Interior Illumination
When the remote function actuator transmitter is used to unlock the doors, the BCM receives a door-unlock signal. The BCM must have inputs that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all the doors are closed. The BCM will then illuminate the courtesy lamps and will remain illuminated for approximately 25 seconds after the door is closed. If the door locks are activated to the LOCK position, or if the ignition switch is turned to either the RUN or START position, the BCM will turn OFF the courtesy lamps immediately.

Courtesy/Illuminated Exit
The illuminated exit feature will activate the courtesy lamps when the key IN input of the BCM transitions from an active state to an inactive state (removing the ignition key). When the key is removed from the ignition, the key IN input to the BCM becomes inactive. The BCM will illuminate the courtesy lamps for approximately 25 seconds.

Theater Dimming
The theater dimming feature that will slowly dim the interior lamps from full brightness to OFF. The following actions will over ride the theater dimming feature causing the courtesy lamps to deactivate immediately if no other BCM function commands the courtesy lamps ON:

- A transition from active to inactive of the interior lamps switch, turning OFF the interior lamps switch
- A LOCK command from the remote keyless entry system
- A last door closed locking function, locking and closing all the doors

Underhood Compartment Lamp
The BCM supplies battery positive voltage through the inadvertent power courtesy lamps circuit to the underhood compartment lamp. When the hood is opened, the underhood compartment lamp switch closes to ground and the lamp illuminates.

Dome/Reading Lamps
The dome/reading lamp is a duel purpose lamp that can be illuminated two different ways. First, the lamp can be turned ON during courtesy lamp operation as described above. Second, the lamps can be turned ON individually for reading lamp operation by the lamp switch. The BCM supplies battery voltage through the inadvertent power courtesy lamp circuit to the dome/reading lamp for reading lamp operation only.

Sunshade Vanity Mirror Lamps
The BCM supplies battery voltage through the inadvertent power courtesy lamps circuit to the left and right vanity mirror lamps. When the vanity mirror cover on the sunshade is opened, the vanity mirror lamp switch is closed to ground and the lamp illuminates.

Interior Lamps Dimming

The second interior lighting group includes lamps which may be dimmed. This group may use a combination of vacuum fluorescent (VF) illumination, LED illumination and incandescent lamps.

- Headlamp switch
- Tow/haul switch
- Traction control switch
- HVAC control module
- Driver window switch
- Driver power door lock switch
- Auxiliary blower motor switch
- Front passenger window switch
- Front passenger door lock switch
- Front auxiliary HVAC control assembly

- Rear auxiliary HVAC control assembly
- Steering wheel controls
- Inflatable restraint I/P module disable switch
- Driver information center (DIC) display switch
- Radio

When the ignition switch is turned to the RUN position, the instrument panel cluster (IPC), radio VF display, and the HVAC control assembly turns ON at maximum brightness. When the headlamp switch is in the PARK or HEADLAMP ON position, all incandescent and LED back lighting turn ON at the dimming level indicated by the instrument panel (I/P) dimmer switch. The dimmer switch is used to increase and decrease the brightness of the interior backlighting components. The BCM supplies a voltage reference through the I/P dimming voltage reference circuit to the interior lamp dimmer switch, which is part of the headlamp switch. When the dimmer switch is placed in a desired brightness position, reference voltage is applied through the dimmer switch rheostat and the I/P lamps dimmer switch signal circuit to the BCM. The BCM interprets this voltage signal, then applies a pulse width modulated (PWM) voltage through the I/P lamps supply voltage circuits and the LED dimming supply circuit to all related interior backlighting lamps illuminating them to the desired level of brightness.

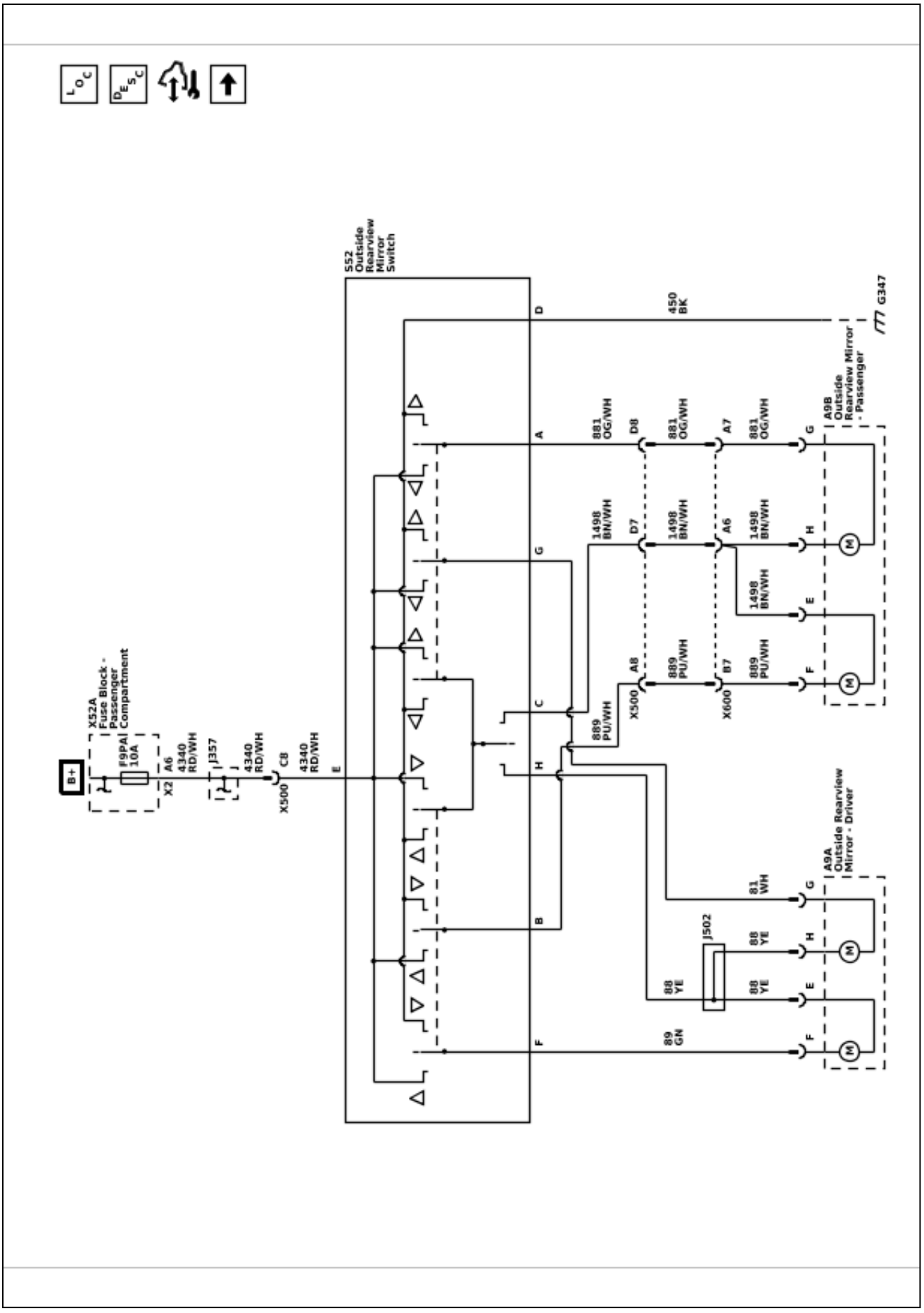
Battery Rundown Protection / Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM opens these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer resets for another 10 minutes.

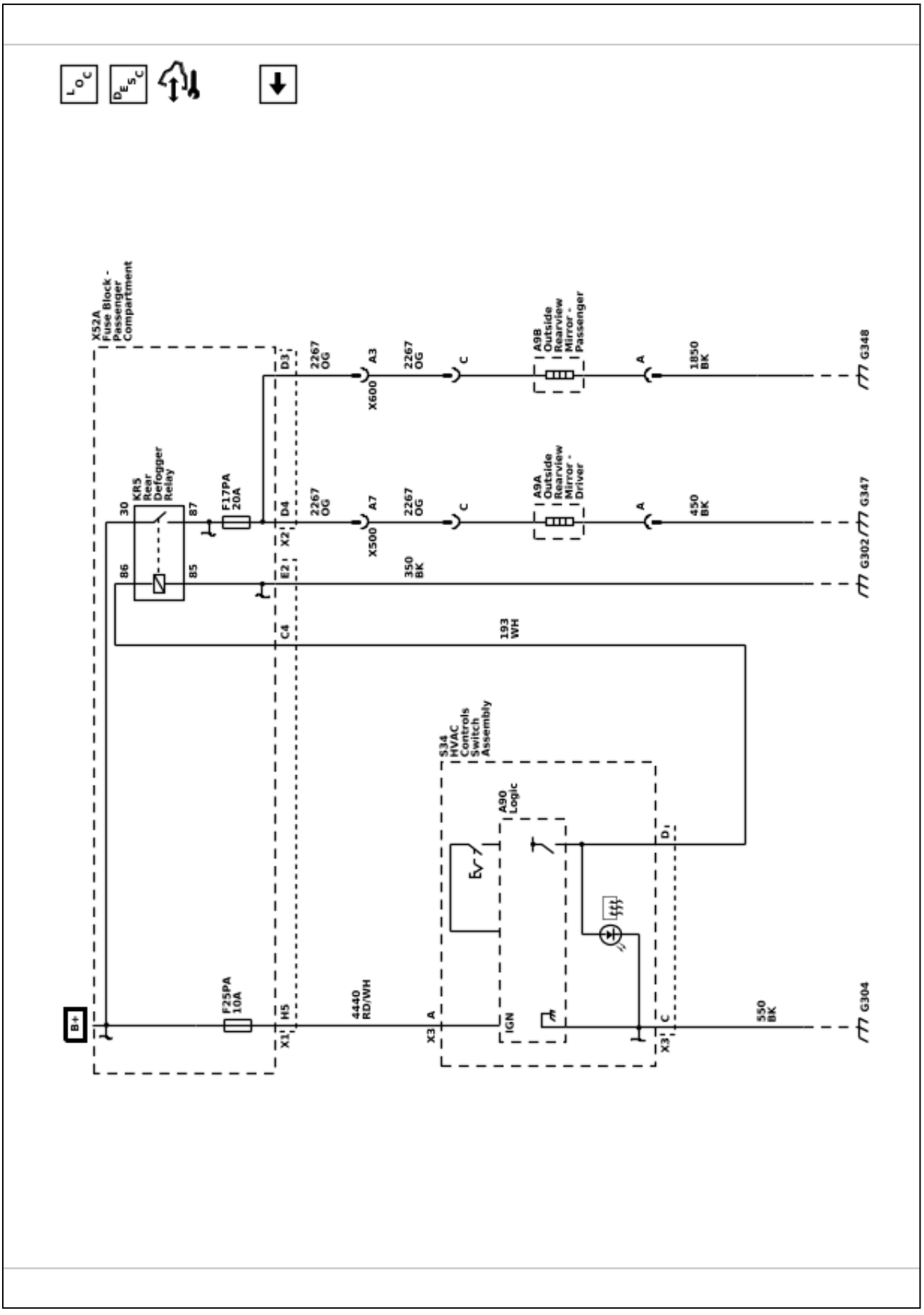
Mirrors

Schematic and Routing Diagrams

Outside Rearview Mirror Schematics (Pan and Tilt (DE5))



Outside Rearview Mirror Schematics (Heated Mirrors (DE5))



Description and Operation

Outside Mirror Description and Operation

Outside Mirror System Components

The power mirror system consists of the following components:

- Power mirror switch
- Selector switch
- Left outside power mirror
- Right outside power mirror
- OSRVM 10A fuse
- HVAC control module
- Left outside power mirror
- Right outside power mirror

Each of the outside power mirrors contains two reversible motors. The vertical motor operates the up and down directions and the horizontal motor operates the left and right directions. Each of the power mirror motors are circuit breaker protected.

Power Mirror System Controls

The power mirror switch incorporates a mirror select switch and a four position mirror direction switch.

The mirror select switch allows the operator to select the mirror to be moved by rotating counterclockwise to the L position, left outside power mirror, or rotating clockwise to the R position, right outside power mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The power mirror switch receives power through the battery supply voltage circuit and the OSRVM fuse. The power mirror switch also receives a constant ground.

The four positions of the direction switch have dual switch contacts. Each of the contacts are connected to opposing sides of the appropriate power mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch (L or R).

If the selector switch is placed in the L position and the up switch is depressed, battery voltage will be supplied to the left outside power mirror vertical motor through the left mirror motor up direction circuit and return to the power mirror switch through the mirror motor common circuit then to ground and the mirror will move up. If the down switch is depressed, the common circuit supplies battery voltage and the left mirror motor up direction circuit completes the path to the power mirror switch then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. The thing to remember is, that by placing the power mirror switch in opposing positions (left/right or up/down) will reverse the polarity of the mirror motor, utilizing the same circuits and the power mirror will move accordingly.

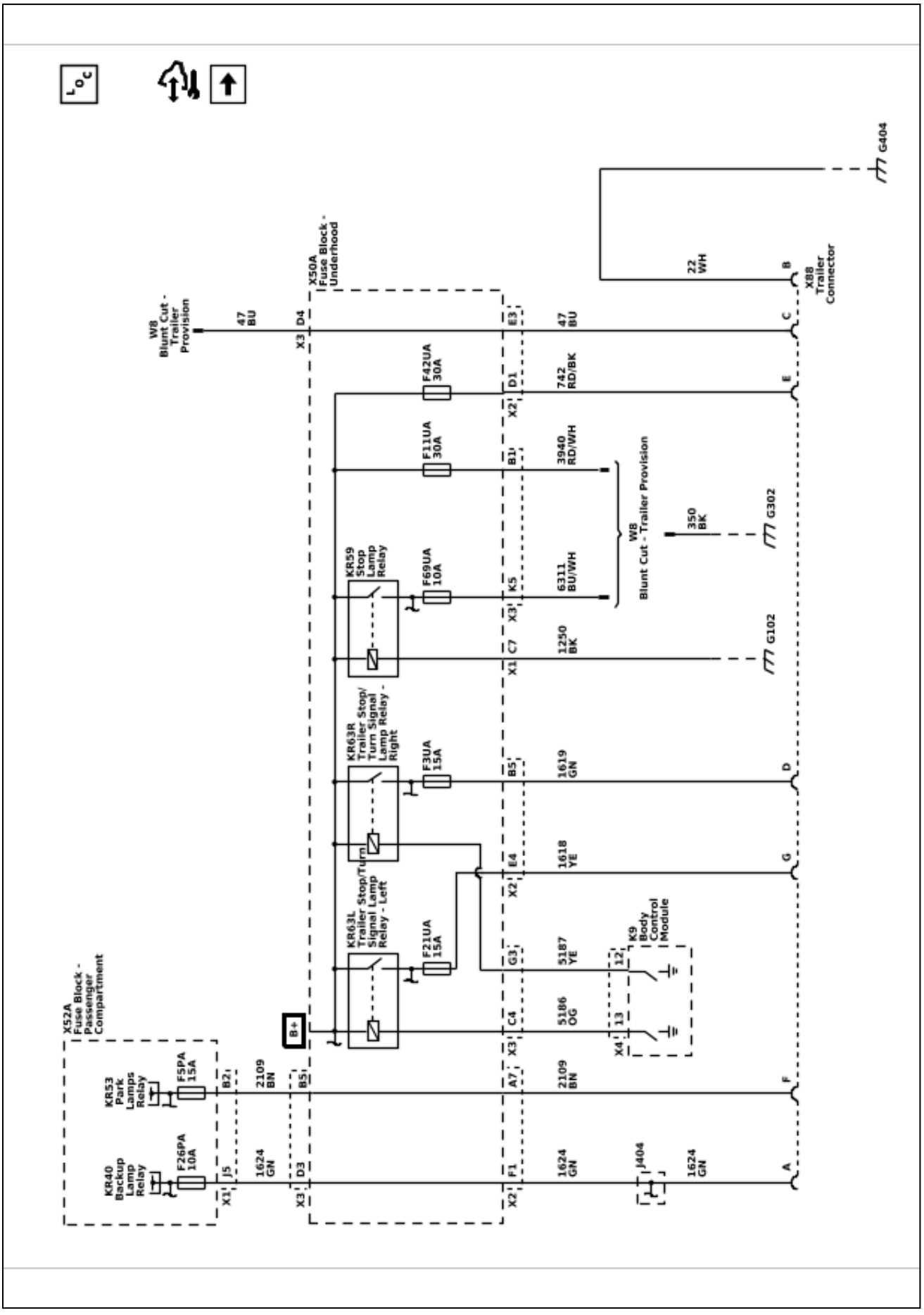
Heated Mirror System Controls
The heated mirror system is activated by depressing the rear window defogger switch, which is part of the HVAC control module. For further information on the rear window defogger operation, refer to *Rear Window Defogger Description and Operation 1-5*.

Heated Mirror System Operation
The heated mirror system operates in parallel to the rear window defogger. Each outside rearview mirror contains a heating element that is connected to a constant ground source. When the rear window defogger system is active, battery voltage is available to the outside rearview mirrors through the heated mirror supply voltage circuit. The mirrors will heat up to remove ice, snow or frost and will automatically deactivate when the rear defogger system has timed out, approximately 10 minutes.

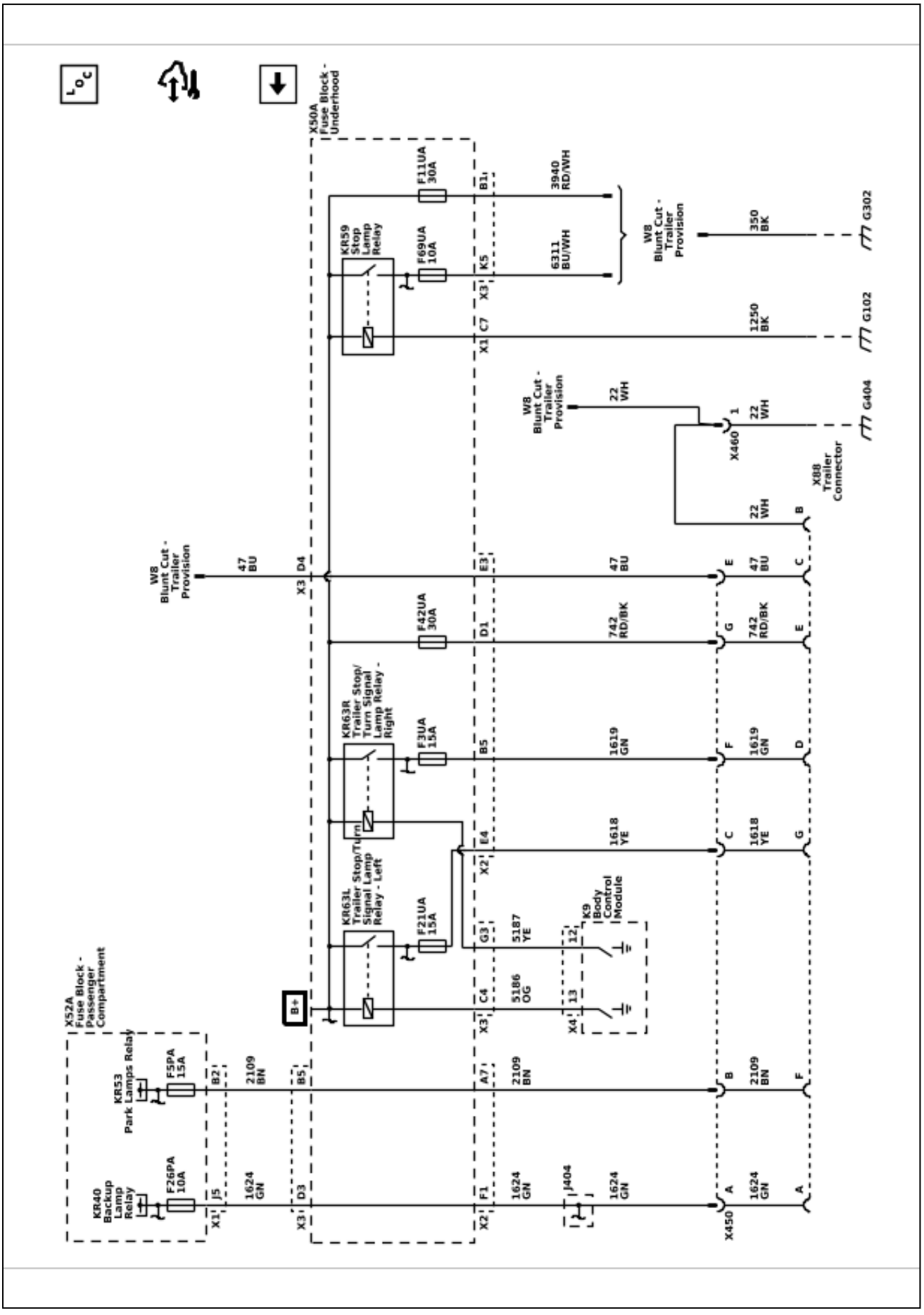
Trailering Systems

Schematic and Routing Diagrams

Trailering Systems Schematics (Trailer Connector/Provision (UY7 - NE7))



Trailering Systems Schematics (Trailer Connector/Provision (UY7 & NE7))



Description and Operation

Trailering Description and Operation

Trailer Lamps

Backup Lamps

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the K9 Body Control Module (BCM). The message indicates that the gear selector is in the reverse position. The BCM responds by applying voltage to the KR40 Backup Lamp Relay control circuit. With the backup lamp relay energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuse to the trailer backup lamp control circuit which illuminates the trailer backup lamp(s). Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit. The engine must be running for the backup lamps to operate.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the K9 Body Control Module (BCM). The BCM responds by applying ground to the KR53 Park Lamps Relay control circuit. With the park lamp relay energized, the relay switch contacts close and battery voltage is applied through the park lamp fuse to the trailer park lamp control circuit which illuminates the trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The K9 Body Control Module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM responds by applying ground to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse's to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

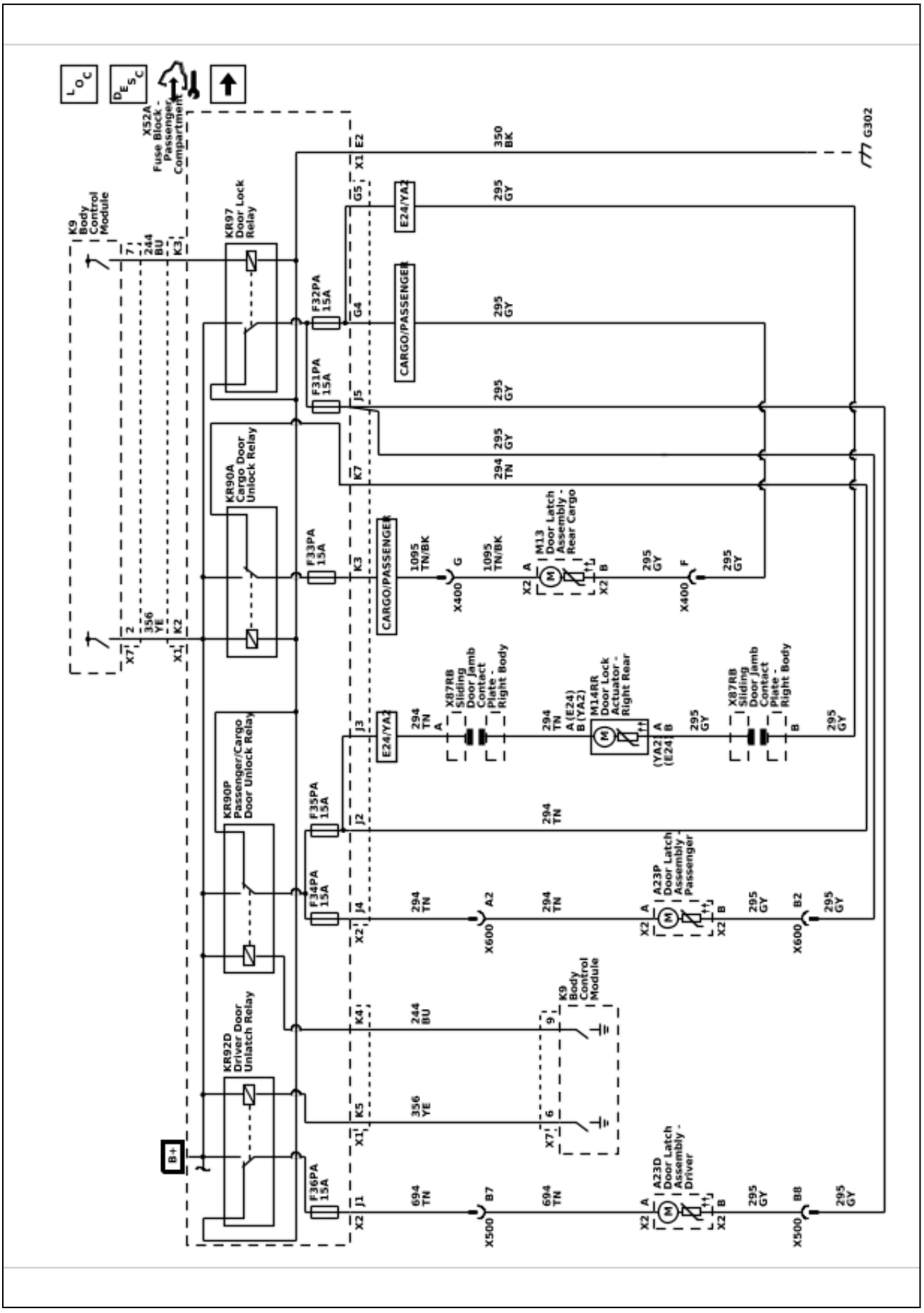
Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the K9 Body Control Module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating ground to the appropriate left or right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left or right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left or right trailer stop/turn signal fuse to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

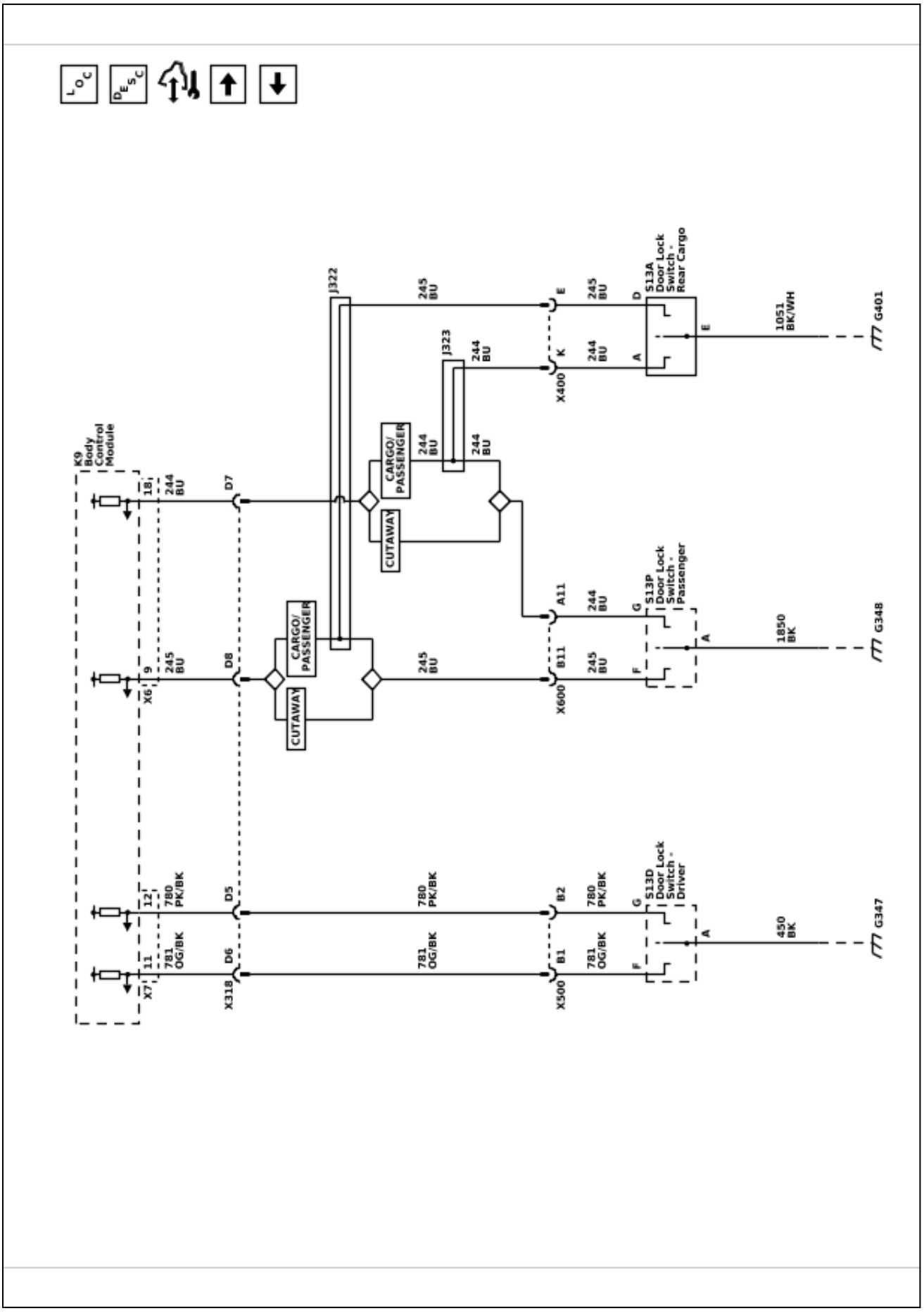
Vehicle Access

Schematic and Routing Diagrams

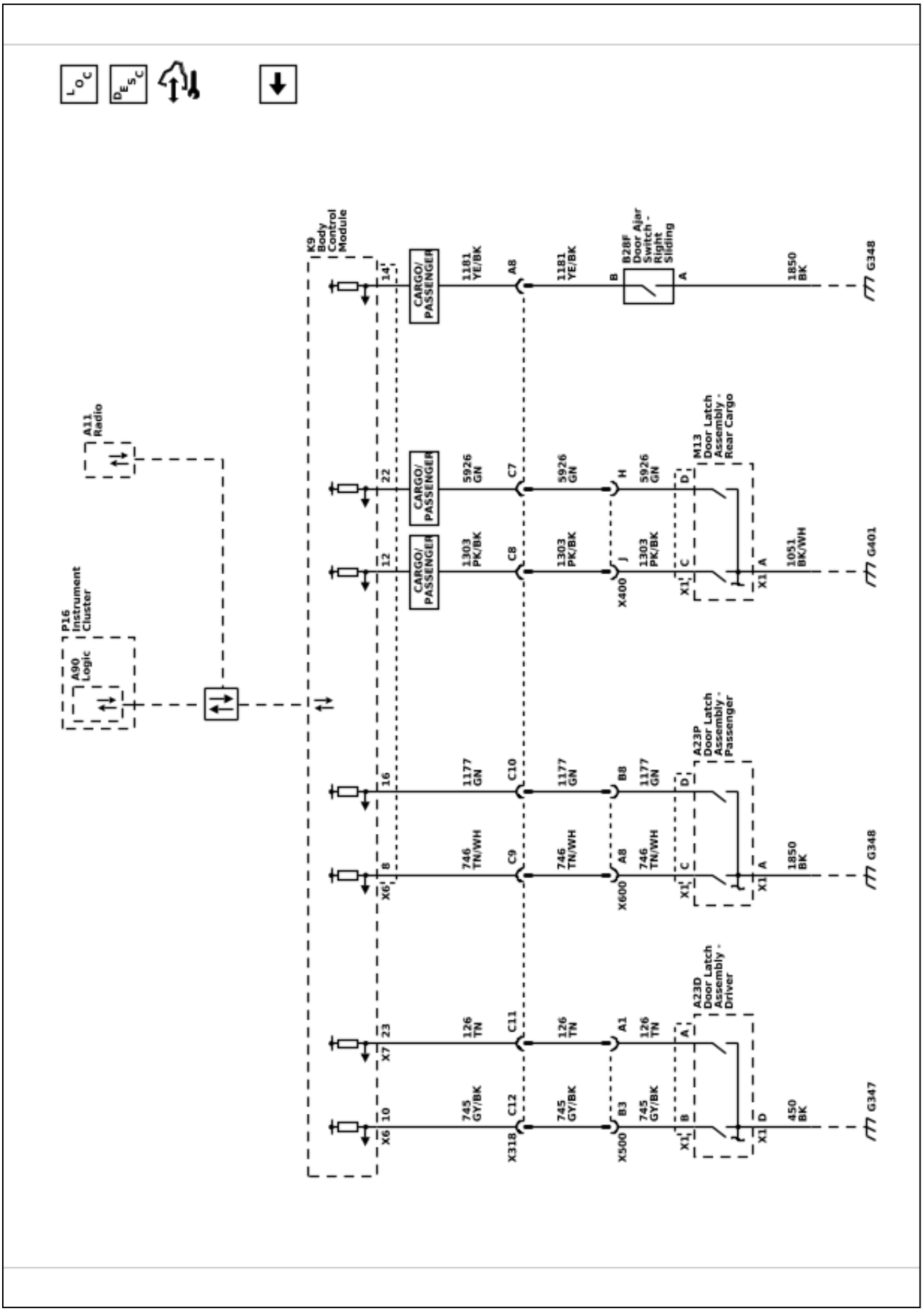
Door Lock/Indicator Schematics (Lock/Unlock Control (AU3))



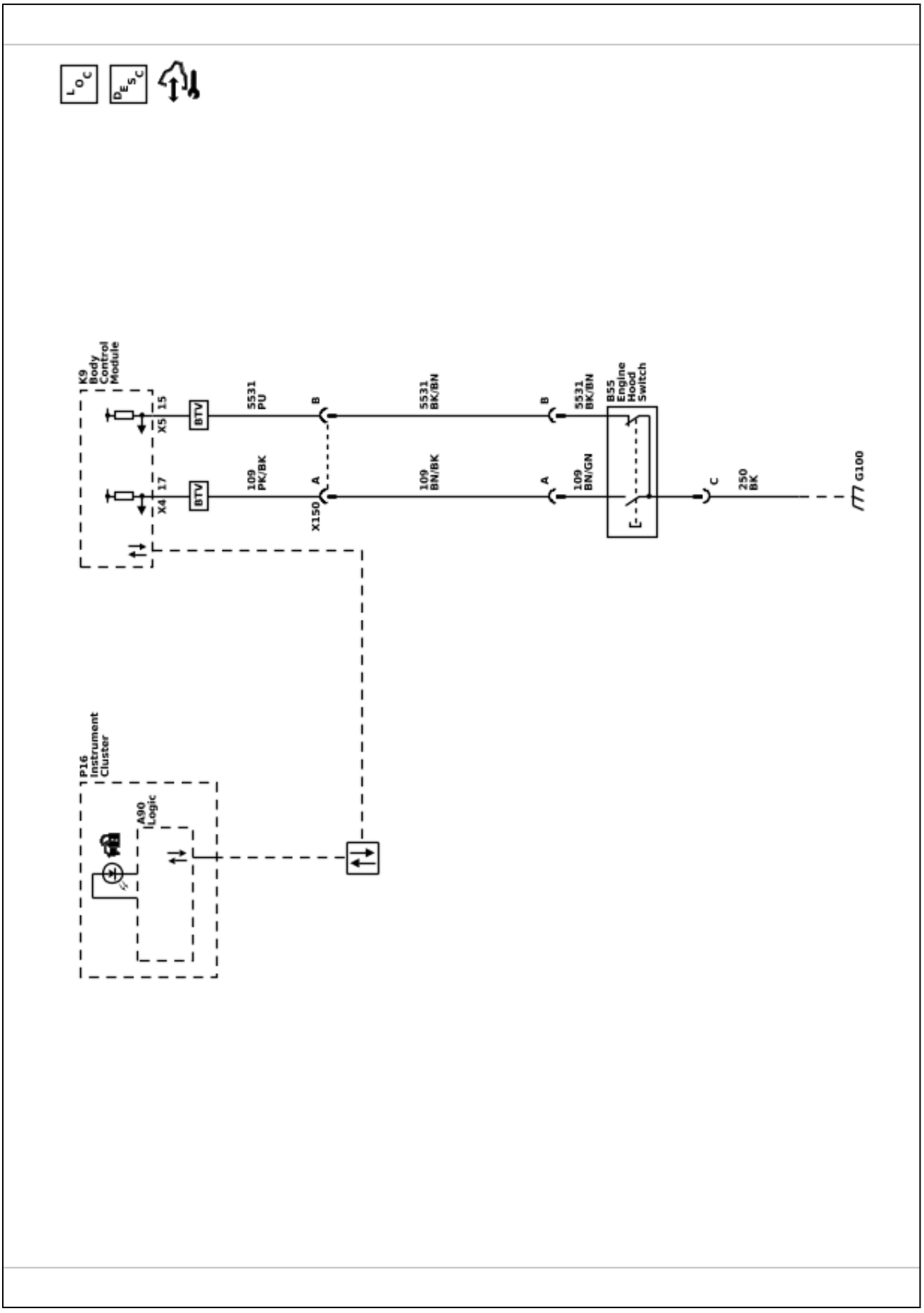
Door Lock/Indicator Schematics (Door Lock Switches (AU3))



Door Lock/Indicator Schematics (Door Ajar Switches)



Hood Latch Schematics (Hood Latch)



Description and Operation

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- The body control module (BCM)
- The instrument panel cluster (IPC)
- The driver information center (DIC)
- The door ajar switch

Door Ajar Operation

The body control module (BCM) receives a discrete input from the door ajar switch to indicate the status of the door. The BCM then communicates this status to the instrument panel cluster (IPC) via GMLAN serial data. The IPC, upon receipt of this message, will illuminate the door ajar message in the driver information center (DIC) and also send a GMLAN serial data message to the radio to activate the door ajar audible warning when the following conditions are met:

- The transmission is shifted out of PARK.
- The vehicle speed is greater than 8 km/h (5 mph).

Hood Ajar Indicator Description and Operation

Hood Ajar Switch

The hood ajar switch provides closure status of the hood to the body control module (BCM) and on vehicles equipped with any hybrid drivetrain or start stop technology a power train module. The switch is integrated into the hood latch assembly. The BCM, and other module if equipped, monitor the voltage on their circuit as it passes through the different positions of the hood switch.

The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.

Hood Ajar Indicator/Message

When the hood is ajar, a message is displayed on the driver information center (DIC) or the hood ajar indicator will be illuminated.

Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Front passenger door lock switch
- Rear cargo door lock switch
- Door lock relay
- Passenger door unlock relay
- Driver door unlock relay
- Cargo door unlock relay
- Body Control Module (BCM)
- Reversible door lock actuators in each of the doors
- DRV LKS 10A fuse, driver door unlock relay supply voltage
- CARGO UNLK 10A fuse, cargo door unlock relay supply voltage
- DOOR LKS 20A fuse, door lock relay and passenger door unlock relay supply voltage

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A power door lock or unlock switch activation
- A keyless entry transmission
- A lock out prevention function
- A last door locking function

Driver, Passenger and Cargo Door Lock Operation

When any of the door lock switches are placed in the lock position, a ground signal is applied to the BCM through the door lock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the door lock relay through the door lock relay control circuit. Since the other side of the door lock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the lock side of the door lock actuators through the door lock actuator lock circuits. Since the other side of the all the door lock actuators are connected to the normally closed contacts of their respective unlock relays to ground, the doors lock.

The lock function can also be accomplished by the BCM supplying ground to the door lock relay control circuit by either of the following:

- A keyless entry lock transmission
- A last door lock function

Driver Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the driver door unlock relay through the driver door unlock relay control circuit. Since the other side of the driver door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DRV LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the driver door lock actuator through the driver door lock actuator unlock control circuit. Since the other side of the the driver door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the driver door unlocks.

The driver door unlock function can also be accomplished by the BCM supplying ground to the driver door unlock relay control circuit by either of the following:

- A keyless entry unlock transmission
- A lock out prevention function

Passenger Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the passenger door unlock relay through the door unlock relay control circuit. Since the other side of the door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the passenger door lock actuators through the door lock actuator unlock control circuits. Since the other side of the the door lock actuators are connected to the normally closed contacts of the door lock relay to ground, the passenger doors unlock.

The door unlock function can also be accomplished by the BCM supplying ground to the passenger door unlock relay control circuit during a keyless entry unlock transmission.

Cargo Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the cargo door unlock relay through the cargo door unlock relay control circuit. Since the other side of the cargo door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the CARGO UNLK fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the cargo door lock actuator through the door lock actuator unlock control circuit. Since the other side of the the cargo door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the cargo door unlocks.

The cargo door unlock function can also be accomplished by the BCM supplying ground to the cargo door unlock relay control circuit during a keyless entry unlock transmission.

Delay Locking Operation

This feature allows the operator to lock all the doors from a door lock switch with the side doors(s) open. The side cargo doors have contact plates that complete the power door lock and unlock control circuits, among others, when the side cargo doors are closed, and interrupt these circuits when the doors are open. When a lock function occurs and the BCM senses an active state on any door ajar switch signal circuit the driver, front passenger and cargo doors will lock as described. The BCM continues to monitor door ajar switch signal circuits. When the BCM senses an inactive state, door closed, the BCM will cycle the door lock relay again after approximately 5 seconds to perform another lock function, thus locking the side cargo door(s).

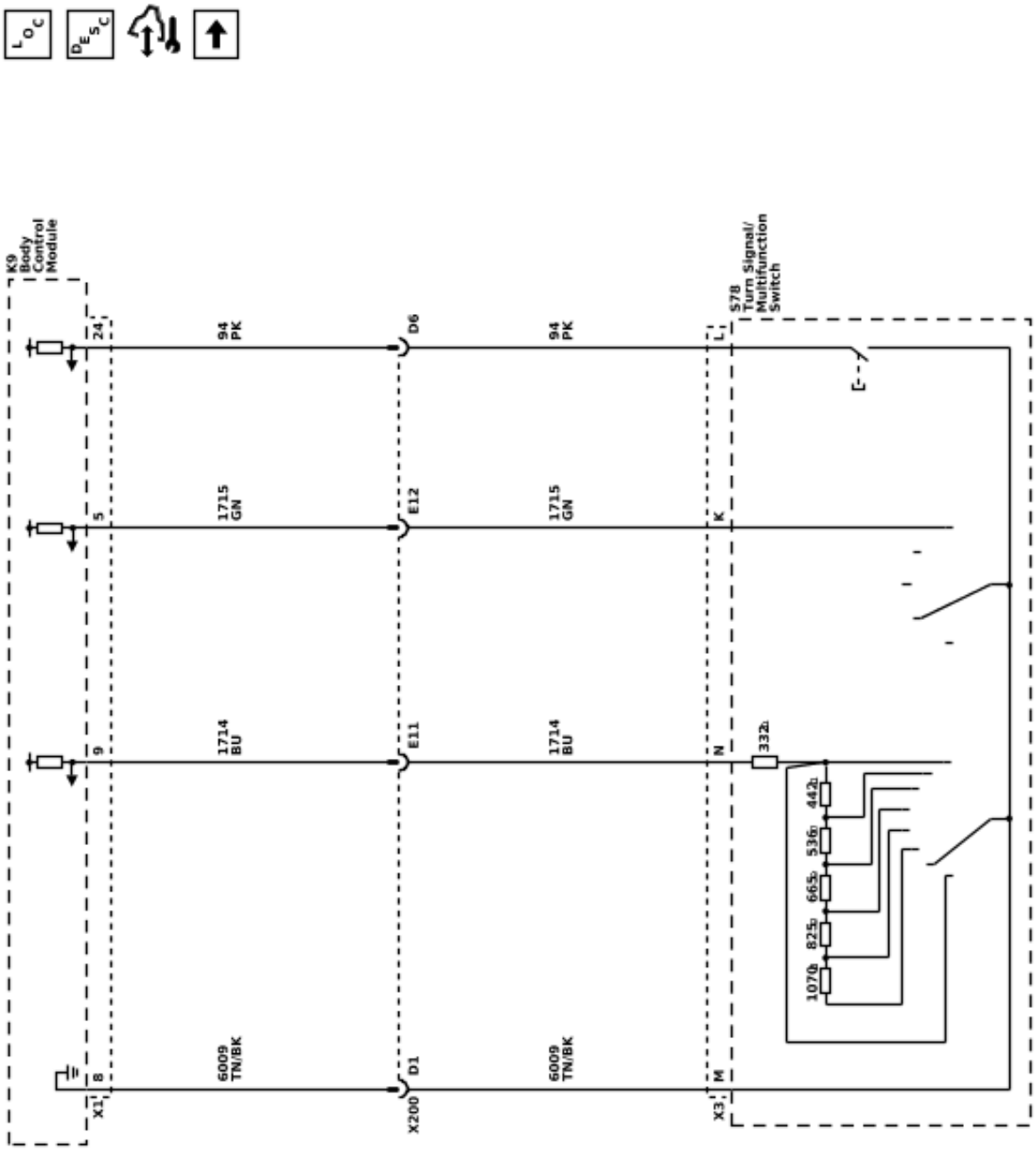
Lockout Prevention

This feature prevents the locking of the driver door if the ignition key is left in the ignition lock cylinder. If a lock function occurs from any door lock switch and the BCM senses a door ajar and the key in ignition switch signal circuit is in the yes state, the BCM will cycle the door lock relay to lock the doors and then cycle the driver door unlock relay to unlock the driver door.

Wipers and Washers

Schematic and Routing Diagrams

Wiper/Washer Schematics (Wiper Controls)



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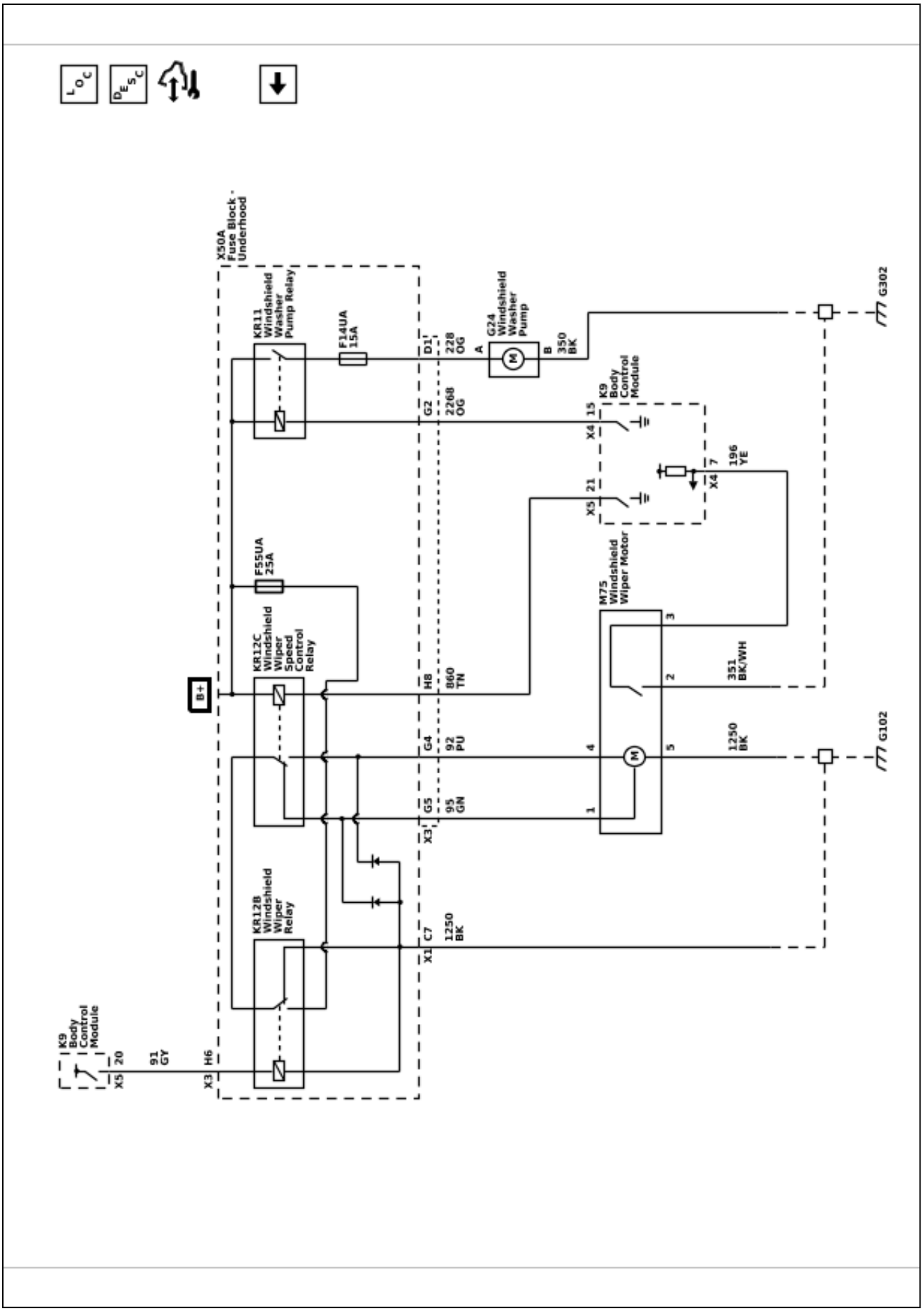
Wiper/Washer Schematics (Wiper and Washer Motor Control)



Description and Operation

Wiper/Washer System Description and Operation (Wiper and Washers)

Wiper/Washer System Components

The Wiper/Washer System consists of the following components:

- Windshield wiper/washer switch
- Body control module (BCM)
- WPR Relay
- WPR HI Relay
- Windshield wiper motor
- Windshield washer fluid pump
- Windshield washer fluid level switch
- Rain sensor module
- Instrument panel cluster (IPC)
- WPR Fuse 25 A
- WSW/PUMP Fuse 10 A
- RAP Fuse 10 A

Refer to *Master Electrical Component List 5-505*.

Power and Grounds

With the ignition in the ON position, accessory voltage is supplied through the 25A WPR fuse to the WIPER relay, the WIPER HI relay and the WSH relay that are all located in the underhood fuse block. Refer to *Wiper/ Washer Schematics 1-44*.

G101 provides ground for the windshield wiper motor. G104 provides ground for the WPR relay, the WPR HI relay, the windshield washer fluid pump and the windshield washer fluid level switch.

Modes of Operation

The normal wiper system function positions are as follows:

- MIST
- DELAY
- MANUAL LOW
- MANUAL HIGH
- WASH

Automatic Modes of Operation

- AUTOMATIC DELAY
- AUTOMATIC LOW
- AUTOMATIC HIGH

Automatic low speed and automatic high speed wiper modes are continuous wiper operations that are controlled by the outside moisture sensor. Automatic low and high speed operation is utilized when the amount of precipitation on the windshield exceeds the automatic delay or low threshold.

Moisture Sensitive Wipers

The outside moisture sensor monitors moisture accumulation on the windshield and uses a windshield wiper/washer switch status input to provide wipe commands to the body control module (BCM). The DELAY positions on the wiper/washer switch are used to activate the AUTOMATIC rain sensing operating mode. They are also used to adjust the level of sensitivity to moisture accumulation, which determines the dwell time for commanding a wiper motor wipe cycle.

Accessory voltage is supplied to the outside moisture sensor through the 10A RAP Fuse, located in the rear fuse block. The sensor is grounded through the ground circuit and G402. Whenever the ignition is in the run or accessory positions, the BCM sends the wiper/washer switch status using a pulse width modulation (PWM) signal through the outside moisture sensor signal 1 circuit to the outside moisture sensor. When a wipe cycle is needed, the moisture sensor sends a PWM voltage signal through the moisture sensor signal 2 circuit back to the BCM requesting the wiper operation.

The outside moisture sensor uses the moisture sensor signal 2 circuit to command wiper motor wipe cycles and to confirm the moisture sensor signal 1 is being received. If at anytime communication between the outside moisture sensor and BCM is lost, the BCM will use the inputs from the windshield wiper/washer switch in the delay positions to operate the wiper motor at continuous variable delay intervals.

Low Speed Operation

When the wiper switch is in the low speed position, ground is applied through a resistor internal to the switch and the wiper switch low signal circuit to the body control module (BCM). In response to this signal, the BCM energizes the WPR relay by applying battery voltage through the wiper relay control circuit to the coil side of the relay. This allows battery positive voltage from the WPR fuse to flow through the switch input side of the WPR relay and out to the switch input side of the WPR HI relay. Since the wiper high relay is de-energized and its switch contacts are normally closed to the low speed control circuit of the windshield wiper motor, the motor will operate at low speed.

Wiper motor low speed operation and the WPR relay can also be commanded ON/OFF by using a scan tool. Refer to **Control Module References**`.

Mist Operation

Windshield wiper/washer system MIST operation is identical to wiper Low operation, except that the mist switch is a press and release type switch. When the wiper switch is moved to the mist position and released, low speed wiper motor operation is started and will continue until 1 wipe cycle is complete. If the wiper switch is moved to the mist position and held, the wiper motor will operate in the low mode until the switch is released.

Delay Operation

Windshield wiper delay operation is a low speed wiper motor function with a variable delay interval between the wiper motor cycles. The delay interval is determined by a series of 6 resistors within the wiper/washer switch. The body control module (BCM) monitors the wiper switch low signal circuit to determine the delay interval between the low speed wiper motor wipe cycles.

High Speed Operation

When the wiper switch is in the high speed position, ground is applied through the windshield wiper switch high signal circuit to the body control module (BCM) indicating the wiper high speed request. In response to this signal, the BCM then energizes the WPR relay, as stated above, and the WPR HI relay by applying ground through the control circuit to the coil side of the relay. With the wiper high relay energized and its switch contacts closed to the high speed control circuit of the wiper motor, the motor will operate at high speed.

The wiper high speed relay can also be commanded ON/OFF by using a scan tool. However, before commanding the wiper motor high speed mode ON/OFF using a scan tool, the WPR relay must be energized by placing the wiper switch in the low speed position. Refer to **Control Module References**.

Wash Operation

When the windshield Wash switch is pressed, ground is applied through the switch contacts and the windshield washer switch signal circuit to the body control module (BCM) indicating the windshield wash request. The BCM then energizes the WPR relay, as stated above, and the WSH relay by applying ground through the control circuit to the coil side of the relay. With the wash relay energized, battery voltage from the WPR fuse is applied through the switch side of the relay and out to the control circuit of the windshield washer fluid pump. The wiper motor will operate for 2 wipe cycles after the wash switch is released.

The WSH relay can also be commanded ON/OFF by using a scan tool. Refer to **Control Module References**.

Park Position Operation

Windshield wiper motor park operation is controlled by the body control module (BCM) using an input from the park switch that is located within the wiper motor assembly. The BCM monitors the windshield wiper motor park switch signal circuit, to determine if the windshield wiper blades are at the bottom of the glass. During wiper operation, each time the wiper blades are at the bottom of the glass, the park switch is momentarily closed to ground signaling the BCM the wiper position. When the wiper switch is turned to the OFF position while the wiper motor is somewhere in mid-cycle, the BCM will continue to operate the motor until the wipers reach the park position. If the ignition is turned OFF while the wipers are in mid-cycle, the wipers will stop immediately where they are. The BCM will park the wipers the next time the ignition is turned ON.

Washer Fluid LOW ADD FLUID Message

The WASHER FLUID LOW ADD FLUID message is controlled by the instrument panel cluster (IPC) using an input from the washer fluid level switch. With the ignition in the ON position, the IPC applies ignition voltage through an internal resistor and the windshield washer fluid level signal circuit to the windshield washer fluid level switch. The IPC then monitors this voltage to determine the washer fluid level. With the washer fluid above a determined level, the washer fluid level switch is open and the IPC detects voltage on the signal circuit. When the washer fluid reaches the point where the driver should be informed that the washer fluid is low, the washer fluid level switch closes. When the washer fluid level switch is closed, the washer fluid level signal circuit is pulled low and the IPC displays the WASHER FLUID LOW ADD FLUID message on the driver information center (DIC). In order to prevent the WASHER FLUID LOW ADD FLUID message from being displayed while sloshing is occurring in the washer fluid container, the IPC is programed with a 1 minute delay before changing states of the WASHER FLUID LOW ADD FLUID message during an ignition cycle.

Section 2

Driver Information and Entertainment

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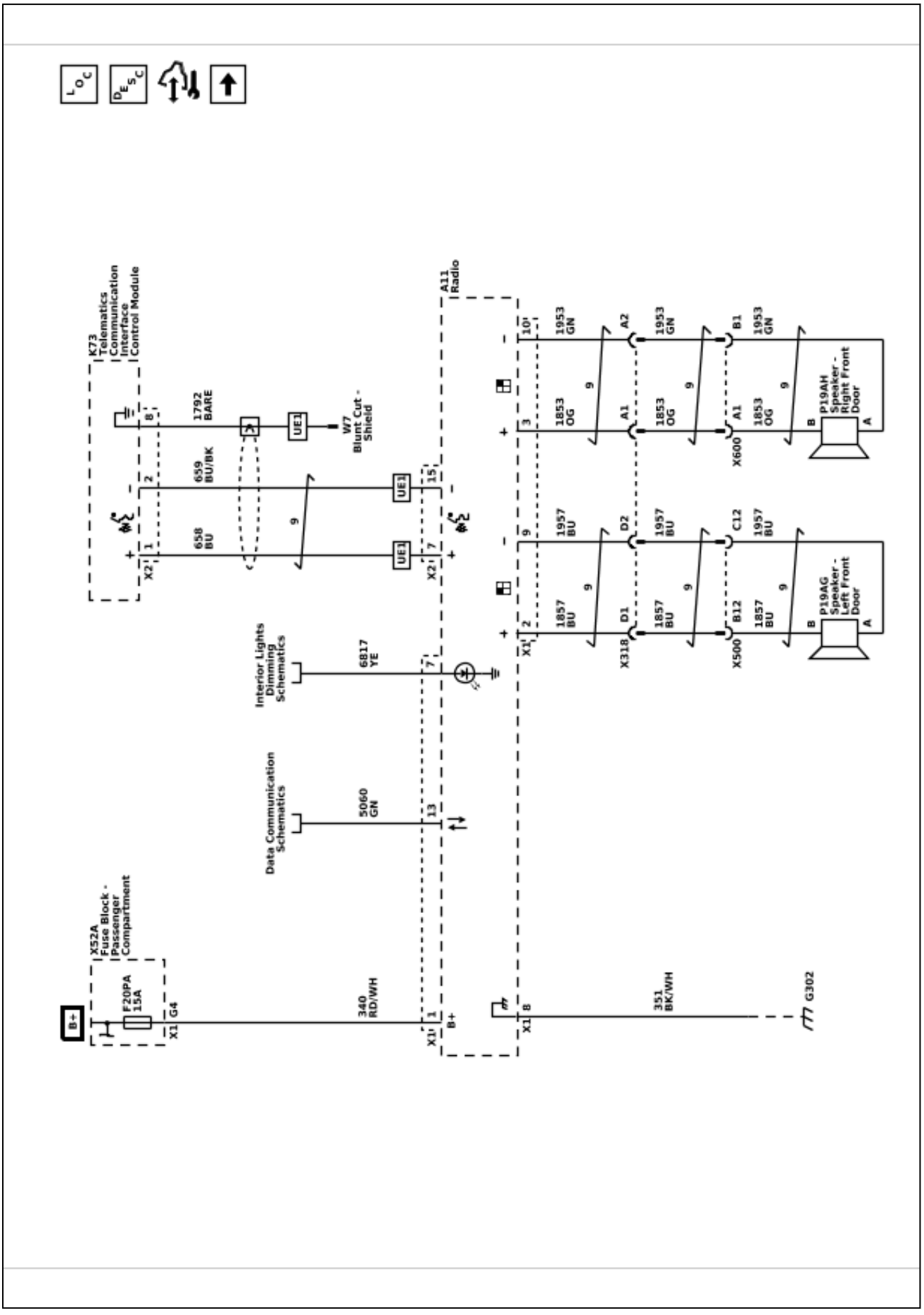
Driver Information and Entertainment

Cellular, Entertainment, and Navigation

Schematic and Routing Diagrams

Radio/Navigation System Schematics (Power, Ground, Serial Data, Microphone, and Front Speakers)



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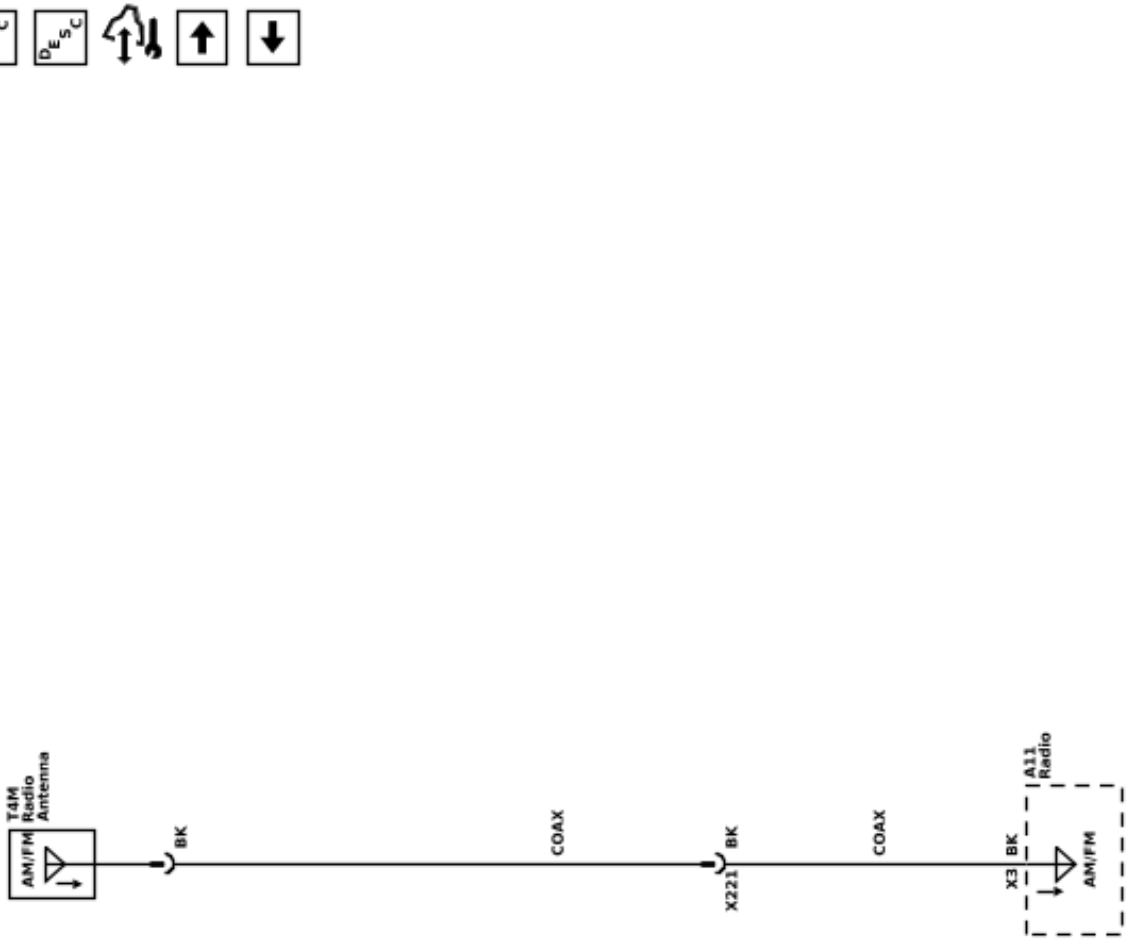
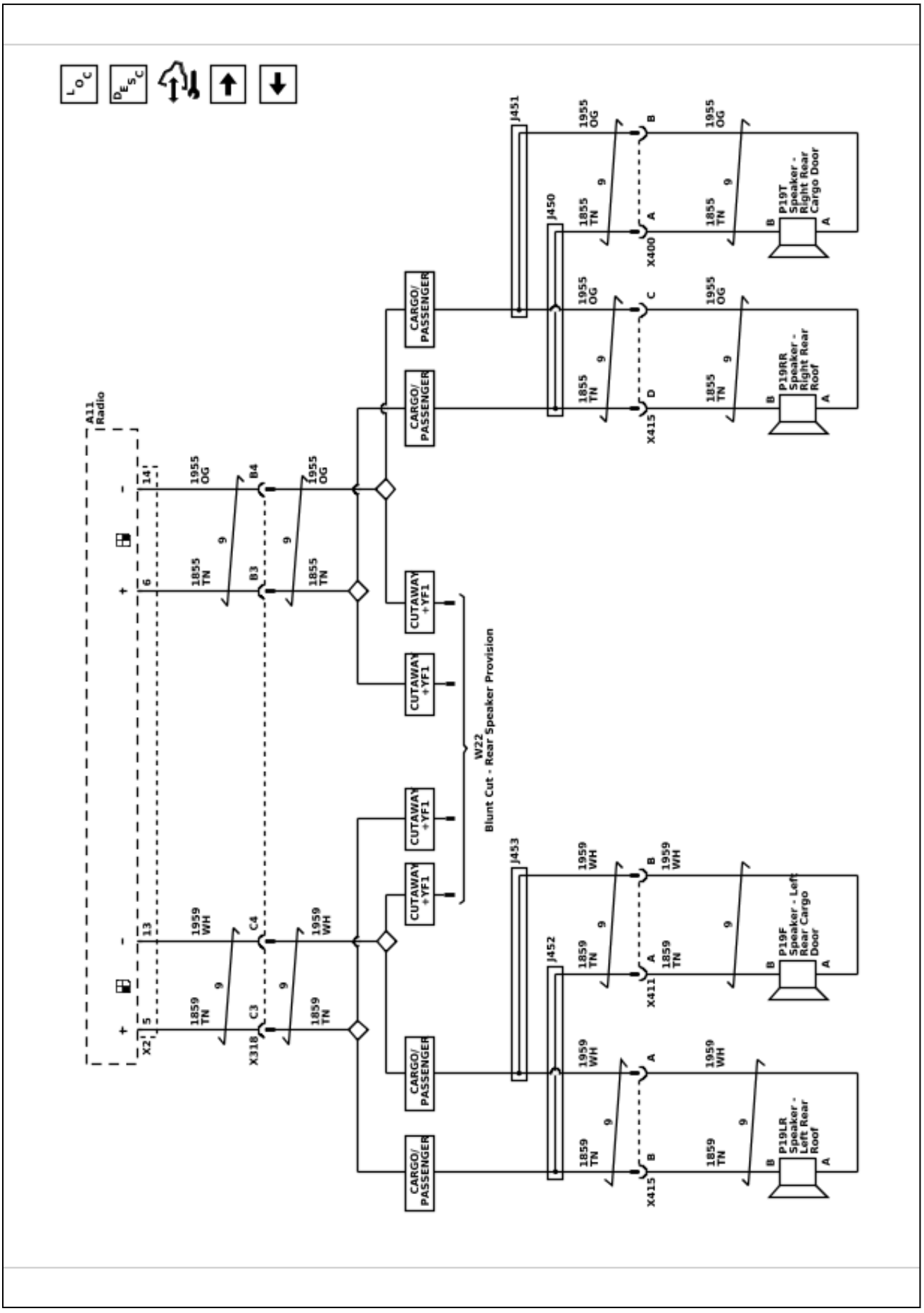
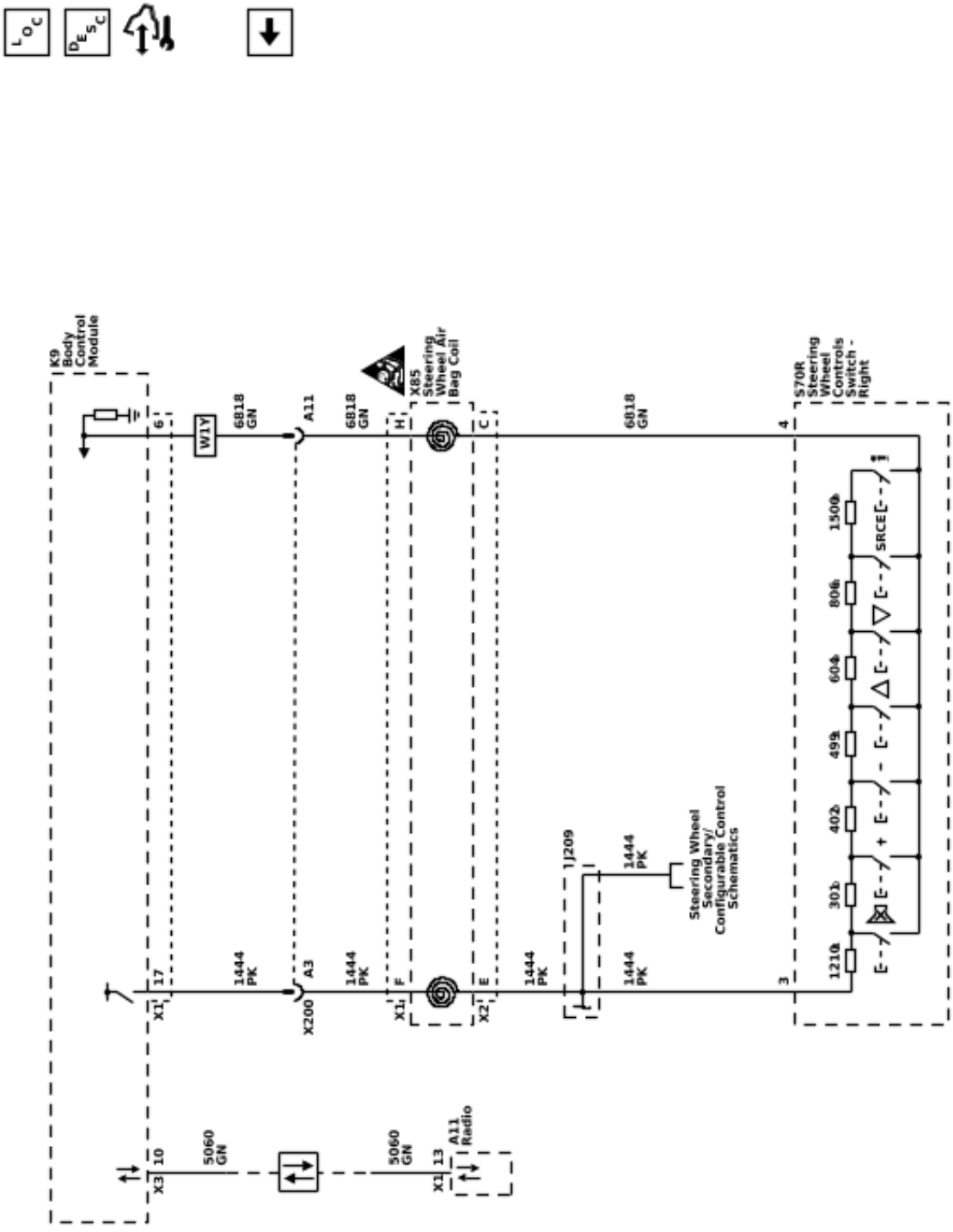
Radio/Navigation System Schematics (Antennas)



Radio/Navigation System Schematics (Rear Speaker Outputs)



Radio/Navigation System Schematics (Steering Wheel Radio Redundant Controls)



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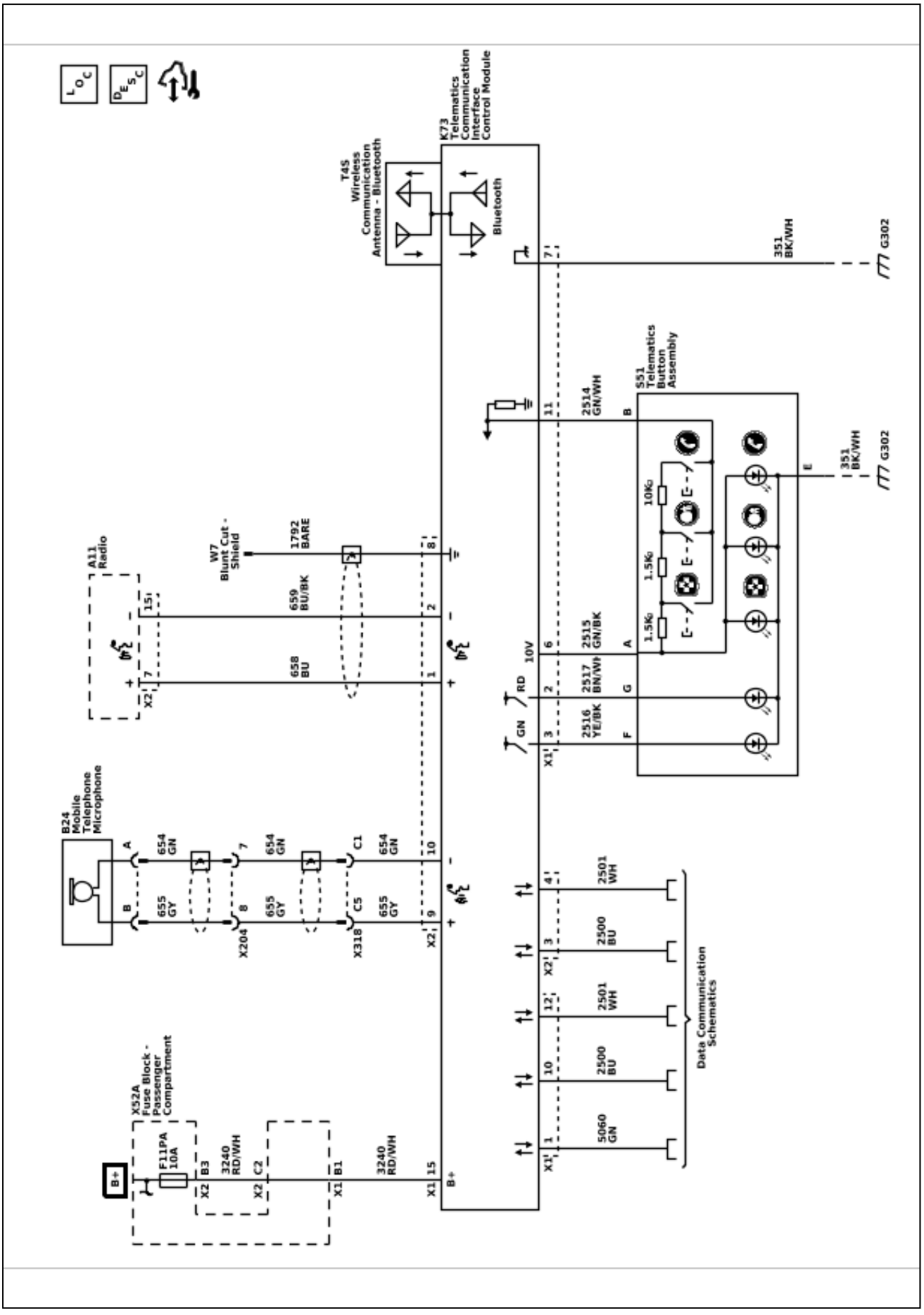
OnStar/Telematics Schematics (OnStar Module (UE1))



Description and Operation

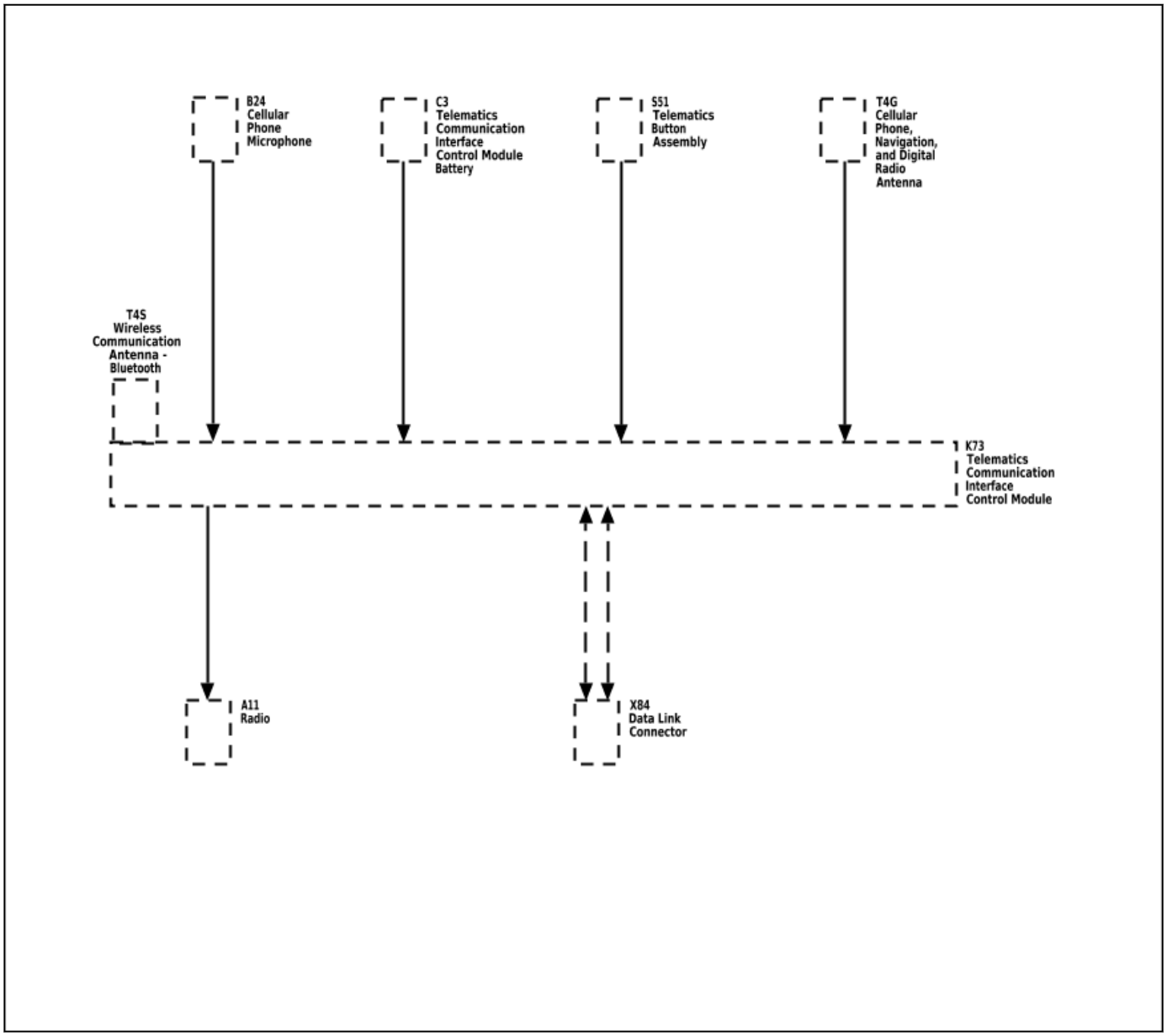
OnStar Description and Operation

This OnStar® system consists of the following components:

- Telematics communication interface control module
- OnStar® three button assembly
- Microphone
- Cellular antenna
- Navigation antenna
- Bluetooth® antenna (If equipped)
- Back up battery (If equipped)
- WiFi Hotspot (If equipped)
- TTY (Teletypewriter)
- FOTA (Firmware Over The Air)

This system also interfaces with the factory installed vehicle audio system.

Onstar Block Diagram



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Telematics Communication Interface Control Module

The OnStar Generation 10 system uses Global System for Mobile Communication (GSM) to communicate data and voice signals over the national cellular network. The module may also have the ability to act as a Wireless Local Area Network (WLAN) Wi-Fi hotspot similar to a home wireless router. The module houses an internal WLAN antenna enabling hotspot connectivity and streaming high speed media to the entertainment system. The module also may enable Teletypewriter (TTY) and be capable of Bluetooth communication utilizing an internal antenna. The module is capable of up to 4G LTE speeds and houses 2 technology systems, one to process Global Positioning System (GPS) data, and another for cellular information. The module sends and receives all cellular communications over two cellular antennas and cellular antenna coax cables.

The OnStar Gen 10 system has two antenna inputs, a primary cellular signal and a combined GPS/secondary cellular signal. The OnStar® system uses the Unitied States Global Positioning System (GPS) signals to provide location on demand. GPS is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near Earth where there is an unobstructed line of sight to four or more GPS satellites.

The module also has the capability of activating certain features such as, the horn, remote starting, initiating door lock/unlock, or activating the exterior lamps using the serial data circuits. These functions can be commanded by the OnStar® Call Center per a customer request or mobile device app depending on vehicle and customer subscription.

Dedicated circuits are used to connect the telematics communication interface control module to a microphone, the button assembly, radio, and if equipped the Back Up Battery (BUB). The telematics communication interface control module communicates with the rest of the vehicle over the serial data bus.

Power is provided by a dedicated, fused B+ circuit. Ground is provided through the vehicle wiring harness attached to the module. The power mode state is determined by the telematics communication interface control module through serial data messaging.

OnStar® Three Button Assembly

- The OnStar® button assembly may be part of the rearview mirror, or a separate, stand alone unit. The button assembly is comprised of 3 buttons or 3 capacitive touch buttons and status LED's or an error indicator. The buttons are defined as follows:
  - The answer/end button, which is black with a white phone icon or a white driver figure seated with voice signals near its face, allows the user to answer and end calls or initiate speech recognition.
  - The blue OnStar® call center button, which displays the OnStar® logo, allows the user to connect to the OnStar® call center.
  - The emergency button, which displays white letters "SOS" with red background, sends a high priority emergency call to the OnStar® call center when pressed.

If the LED does not illuminate, this may indicate that the customers OnStar® subscription is not active or has expired. Push the blue OnStar button to connect to an advisor who can then verify the account status.

The telematics communication interface control module supplies 10 volts to the OnStar® button assembly on the keypad supply voltage circuit. When pressed, each button completes a circuit across a resistor allowing a specific voltage to be returned to the telematics communication interface control module on the keypad signal circuit. Depending upon the voltage range returned the telematics communication interface control module is able to identify which button has been pressed.

The OnStar® status LED or error indicator is located near the buttons. The LED is green when the system is ON and operating normally. When any indicator is illuminated and flashing, it is an indication that a call is in progress. When the LED is red, this indicates a system malfunction is present. In the event there is a system malfunction and the OnStar® system is still able to make a call, the LED will flash red during the call.

Each LED or error indicator is controlled by either the telematics communication interface control module over dedicated LED signal circuits or by low speed GM LAN serial data depending on the inside rearview mirror option. Ground for the LED is provided by the wiring harness attached to the button assembly.

Secondary OnStar® Controls

Some vehicles may have an additional button that when pushed can engage the OnStar® system. The button may be a symbol of a face with sound waves, or may say MUTE, or be a symbol of a radio speaker with a slash through it.

By engaging the OnStar® system with this feature, the user can interact with the system by use of voice commands. A complete list of these commands is supplied in the information provided to the customer. If the information is not available for reference, at any command prompt the user can say "HELP" and the telematics communication interface control module will return an audible list of available commands.

OnStar® Microphone

The cellular microphone can be part of the rearview mirror assembly, or a stand-alone unit in the headliner or roof console. In either case, the telematics communication interface control module supplies approximately 10V to the microphone on the cellular microphone signal circuit. The microphone modifies the 10V depending on the volume and voice being detected. A cellular microphone low reference circuit or a drain wire provides a ground for the microphone. The microphone signal circuits pass through the telematics communication interface control module to support entertainment voice recognition.

Cellular and GPS Antennas

The combination antenna will have any of the following antenna elements when equipped with OnStar:

- Primary cellular element
- Secondary cellular element
- GPS element
- Digital radio element
- AM/FM element

The Gen 10 OnStar® system uses 2 cellular antenna elements to send and receive cellular data, the primary cellular element and the secondary cellular element. The primary cellular signal is carried by a coax cable that connects the antenna directly to the telematics communication interface control module. Details of the secondary cellular signal are further described below.

The GPS antenna element is used to collect the signals of the orbiting GPS satellites. Within the antenna is housed a low noise amplifier that allows for a more broad and precise reception of this data. Also housed within the antenna is circuitry to combine the GPS signal and the secondary cellular signal. Without navigation, the combination GPS/secondary cellular signal is carried by a coax cable that connects directly to the telematics communication interface control module. The cable also provides a path for DC current for powering the antenna. With navigation, the combination GPS/secondary cellular signal is carried by a coax cable that connects to the navigation signal splitter. The splitter supplies the GPS signal to the navigation/entertainment system and the GPS/cellular signal to the telematics communication interface control module.

The digital radio element collects digital radio signals from two satellites and where necessary terrestrial repeaters. The digital radio signal is carried by a coax cable and connected to the digital radio receiver. Refer to Radio/Audio System Description and Operation for further details.

The radio signal is sent from a broadcast station and is then received by the AM/FM radio antenna element. The AM/FM radio signal is carried by a coax cable and is connected to the radio. Refer to Radio/Audio System Description and Operation for further details.

OnStar® RemoteLink

OnStar® RemoteLink is a mobile app to link mobile devices to a vehicle for limited diagnostics and feature controls. After downloading the app and registering the device, vehicle owners with an eligible vehicle can use their mobile devices to access real-time data from their vehicle and perform specific commands remotely.

All communication between the app and the vehicle is powered by OnStar's® advanced connected vehicle technology. An active OnStar® account as well as a valid OnStar® username and password are required to use the app. The remote commands must be enabled by logging into the user’s OnStar® account prior to using the app. Refer to the owners manual for available vehicle data and control features.

Compass Heading

The telematics communication interface module has a compass feature to calculate vehicle direction which is displayed via the instrument panel cluster or designated display. The compass heading is determined by dead reckoning until the GPS 3d fix is established. The dead reckoning is accomplished by using the yaw rate sensors and wheel ticks to determine heading changes from a GPS known heading. The GPS 3d fix heading is determined by the deferential of two locations. If “CAL” is displayed on the Instrument Panel Cluster or designated display refer to the owners manual for steps to calibrate the compass.

Bluetooth® (If Equipped)

Bluetooth® wireless technology is a short-range communications technology intended to replace the cables connecting portable and/or fixed devices while maintaining high levels of security. Only vehicles with steering wheel controls will have Bluetooth® functionality. In order to utilize the vehicle’s Bluetooth® system, a Bluetooth® equipped cellular phone is required.

The Bluetooth® antenna is internal to the telematics communication interface control module, radio or human machine interface module and is used to send and receive signals from a Bluetooth® enabled cellular phone. The available features and functions are determined by the software within the device being used and the telematics communication interface control module. The operating range of the signal from the vehicle is approximately 30 feet. Note that the operating range is dependent upon the cellular phone being used and battery level of the phone.

With Bluetooth® technology customers can experience hands-free calling as their Bluetooth® capable cellular phones are wirelessly connected to the vehicle. It will allow customers to place and receive calls using the steering wheel controls and voice recognition. The vehicle audio system will allow you to listen to your call through the vehicle speakers and adjust volume through steering wheel or radio controls.

Not all Bluetooth® cellular phones are guaranteed to work with the vehicle’s Bluetooth® system. Based on the cellular phone’s service provider and the manufacturer’s implementation of Bluetooth®, not all phones support all available Bluetooth® functionality. Bluetooth® enabled cellular phones will be tested for vehicle compatibility and a feature compatibility list will be provided via the GM Bluetooth® website: http://www.gm.com/vc/bluetooth/

Bluetooth® Features Supported

The following is a list of features supported by the Bluetooth® system. Note that not all devices will support all of the listed functions.

- Automatic reconnection – highest priority phone will automatically be connected to vehicle when vehicle ignition is on
- Hands-free dialing- via digits, redial, name tags (phone number saved to a nametag via voice recognition)
- Answering a call
- Ending a call
- Mute a Call
- Rejecting a call – ignore an incoming call
- Call Waiting
- Three-way Calling – initiated from hands-free system
- Send Number During a Call – this is used when calling a menu-driven phone system
- Transfer a Call – transfer call from vehicle to cellular phone and visa versa
- Voice Pass-Thru – allow access to the voice recognition commands on the cellular phone

Pairing a Bluetooth® Cellular Phone to the Vehicle

In order to use hands-free calling, the cellular phone must be paired to the vehicle. Up to five devices can be paired to the vehicle at one time, but only one can be connected at any given time. To pair a phone, the customer must know how to operate the Bluetooth® functionality of their phone. The pairing process must only be done one time for each phone, unless that phone’s information is deleted. The system will always generate a password and will provide that password if the device you are pairing does not support Secure Simple Pairing (SSP). If the device being paired does support SSP the system will not provide the password and automatically pair the device. For safety reasons, the pairing process is disabled while the vehicle is moving.

Once the Bluetooth® cellular phone has been paired with vehicle, it will automatically connect to the vehicle when the ignition is on and the device is on. When more than one paired phone is in the vehicle, the phone with the highest priority will be connected. If the cellular phone is in use while getting into the vehicle, the phone can be switched to hands-free mode with the press of a button. In addition, a call in progress can be transferred from the vehicle hands-free mode to the phone to continue the call as the customer exits the vehicle.

Complete pairing instructions are provided in the Vehicle Owners Manual.

Phantom Phone Calls

A customer may report that the OnStar® system is attempting and/or completing phone calls which the operator of the vehicle did not initiate.

It is important to know which type of reported phantom phone call the operator is reporting. Some phone calls of this nature are considered normal and cannot be addressed other than through education, while others may require some remedial action to resolve. When attempting resolve, it is very important to determine under which circumstances the reported Phantom Phone call resulted.

The following are different scenarios:

- The vehicle may receive an incoming call just like any other phone. Typically the customer will hear the phone ringing in the vehicle. This scenario also includes incoming Bluetooth calls.
- Because the button assembly and associated wiring feeds voltage back to the OnStar® system based on the amount of voltage drop through each of the buttons, should the return line be partially shorted to voltage the system could interpret this voltage as a key press. If one of the buttons voltage is simulated, such as the Blue button. The system will make a phone call just as if the button had been pressed by the operator of the vehicle. Refer to the OnStar Button Malfunction document for diagnostics.
- Internal module fault. Some customers may report a condition where ″Phone Unavailable″ message is heard after the vehicle door is opened or key is cycled. The technician may find a DTC stored in the Telematics module (example: U1500 or B1000). Refer to diagnostics for the DTC making sure to follow any applicable Bulletins or PIs.
- Unwanted Hands free calling activation. A customer may report that the ″Ready!″ or ″OnStar® Ready!″ message is heard while driving. The customer may also advise that this seems to happen mostly while making a turn. In some cases it has been found that the customer is inadvertently pressing the ″push to talk″ button on the steering wheel controls. On rare occasions, other issues in the steering column or Steering Wheel Control system may induce this event.

The majority of reported Phantom Phone Calls can be attributed to accidental button presses or customer induced concern. In some cases an incoming call may be mistaken as a phantom call concern. It is important to verify all aspects of the customer concern in order to properly duplicate and diagnose the condition. If the concern points to normal operation and customer induced concern, please communicate to the customer this condition is a normal operating characteristic of their vehicle.

Back-up Battery (If Equipped)

Note: Do not disconnect the main vehicle battery or remove the OnStar® fuse with the ignition key in any position other than OFF. Disconnecting power to the OnStar® module in any way while the ignition is ON or with retained accessory power activated may cause activation of the OnStar® Back-Up Battery. This action is per design as the back-up battery is designed to provide power to the telematics communication interface control module so an emergency notification call can be made after an event where the main battery is disabled. Once the Back-Up Battery is activated it will stay on until the power is restored back to the telematics communication interface control module. The telematics communication interface control module naturally chooses the main supply voltage as it's default supply, but if the main supply is removed or lost for any reason the OnStar® module will use the Back-Up Battery as a power supply as long as the default supply can not be detected. The back-up battery is not rechargeable and once discharged below 9.5 volts the back-up battery must be replaced.

Certain OnStar® equipped vehicles may also be equipped with a back-up battery. The back-up battery is a non-rechargeable, lithium battery intended to provide an auxiliary power source for the telematics communication interface control module in the event where power from the main vehicle battery is lost.

The back-up battery is intended to have a limited life span of approximately 4 years and is designed to maintain an open circuit voltage between 16 V and 9 V throughout this period. This allows the battery to power the basic functions of the telematics communication interface control module for least one 200 second (5 minute) call at the end of the 4 year span, should the main vehicle battery be lost. In the case of a vehicle losing vehicle battery power, OnStar will switch over to the backup battery based on an internal algorithm. It will look for an air-bag deploy, or near-deploy, messages from the SDM. If there are no messages the OnStar module will stay wake for a few minutes longer and monitor the buttons in the mirror. If not pressed, the modules will power down and shut off completely.

The back-up battery is connected to the telematics communication interface control module through the back-up battery positive voltage circuit and back-up battery ground circuit and is protected from a short circuit by means of an internal fuse. In the event the back-up battery, battery positive voltage circuit is shorted to the back-up battery ground circuit or chassis ground, the fuse will open and render the back-up battery permanently inoperable. The status of the back-up battery and its associated wiring is monitored by the telematics communication interface control module.

WiFi Hotspot

The telematics communication interface control module acts as a Wireless Local Area Network (WLAN) WiFi hotspot router and uses direct 4G LTE connectivity to the internet. It has the ability to connect up to 7 devices at one time. A data plan is required and when purchased, a security default password is established. There are several ways to change the SSID or password, by placing a call to the OnStar Call Center, by using the Gen 10 mobile app or through the scan tool.

The system utilizes a secure autoconnect feature between the telematics communication interface control module and the radio/HMI. No user interaction is required, it is always available and ready to connect to a dedicated in car device. The ignition must be in Run, Accessory or RAP for WiFi to operate. The WiFi Hotspot feature is only available with factory option RPO VV4.

Audio System Interface

When the OnStar® requires audio output, a serial data message is sent to the audio system to mute all radio functions and transmit OnStar® originated audio. The OnStar® audio is transmitted to the vehicle audio system by a dedicated signal circuit and a low reference circuit.

The audio system will mute and an audible ring will be heard though the speakers if the vehicle receives a call with the radio ON.

On some vehicles, the HVAC blower speed may be reduced when the OnStar® system is active to aid in reducing interior noise. When the system is no longer active, the blower speed will return to its previous setting.

OnStar® Sleep Cycle

The OnStar® system uses a unique sleep cycle to allow the system to receive cellular calls while the ignition is in the OFF position and retained accessory power mode has ended. This cycle enables the telematics communication interface control module to perform remote functions, such as door unlock, as commanded over the air by the OnStar® Call Center, and to continue to maintain an acceptable level of battery electrical drain.

The OnStar® system uses 4 states of readiness, depending upon the type of cellular market the vehicle is in when the ignition is put into the OFF state:

- High power
- Low power
- Sleep
- Digital standby

The high power state is in effect whenever the ignition is in the ON or RUN position, or retained accessory power is enabled, and the OnStar® system is sending or receiving calls or when the system is performing a remote function.

The low power state is in effect when the OnStar® system is idle with the ignition in the ON or RUN position, or with retained accessory power enabled.

The sleep state is entered after the vehicle has been shut off and the retained accessory power has timed out while in an analog cellular area. At a predetermined time recorded within the telematics communication interface control module, the system re-enters the low power state to listen for a call from the OnStar® Call Center for 1 minute. After this interval, the system will again return to the sleep state for 9 minutes. If a call is sent during the 1 minute interval, the OnStar® system will receive the call and immediately go into the high power mode to perform any requested functions. If no call is received during the 1 minute interval, the system will go back into the sleep mode for another 9 minutes. This process will continue for up to 48 hours, after which the OnStar® system will turn off until the ignition is turned to the ON or RUN position.

The digital standby power state is entered after the vehicle has been shut off and the retained accessory power has timed out while in a digital cellular area. When in digital standby mode, the OnStar® module is able to perform all remote functions as commanded by an OnStar® advisor at any time, for a continuous 120 hours. After 120 hours, the OnStar® module will go into sleep mode until a wake up signal from the vehicle is seen by the telematics communication interface control module. If the OnStar module loses the digital cellular signal it will revert to analog mode and follow the standard sleep state (9 minutes OFF, 1 minute standby) based on the time of the GPS signals, this will continue until a digital cellular signal is again received.

If the OnStar® system loses battery power while the system is in a standby or sleep mode, the system will remain OFF until battery power is restored and the ignition is turned to the ON or RUN position.

Features

OnStar® Personal Calling

The hands free, OnStar® personal calling cellular phone feature is an additional feature of the OnStar® system. This feature is embedded within the telematics communication interface control module; however it must be activated by an OnStar® advisor. OnStar® personal calling operates similar to most hand held cellular phones in that the availability for its usage is based on minutes or units. The customer must have a current OnStar® subscription, as this feature cannot be utilized without it. To use OnStar® personal calling, the customer must also purchase units (minutes) as outlined in the owners guide provided with the OnStar® system. Units begin to deplete, 1 unit is equal to 1 minute, as the customer makes outbound phone calls, answers inbound phone calls, or while connected to the OnStar® virtual advisor. In addition, units may also have an expiration date, depending upon the type of units purchased.

Note: The following feature is only available on MY2017 and prior.

Customers have the ability to store telephone numbers within the module, referenced by a nametag for the convenience of frequently dialed numbers. After storing a nametag, the user can dial this number by initiating the OnStar® personal calling feature, speaking the word "call," and repeating the nametag assigned.

Turn by Turn Navigation

Turn by Turn Navigation allows the driver to contact OnStar® to obtain directions for driving from a current location to a desired location. The Turn by Turn Navigation system stores your planned route and continually checks your position along that route, when you deviate from the planned route, the system will recognize this and prompt the driver with verbal prompts for how to proceed. The driver then responds verbally to direct the system to continue the current routing or to recalculate the route because of a missed turn.

Advisor Record Feature

The Advisor Record Feature allows the user to store any information given during a call with an OnStar® Advisor. Recording is activated by pressing the blue OnStar button during a call; pressing the button a second time stops the recording. The stored information can be played back by pressing the phone button on the three button assembly and using the voice command “Advisor Playback”.

Teletypewriter (TTY) Users

OnStar has the ability to communicate to deaf, hard-of-hearing, or speech-impaired customers while in the vehicle. The available dealer-installed TTY system can provide in-vehicle access to all of the OnStar services, except Virtual Advisor and OnStar Turn-by-Turn Navigation.

Deactivated OnStar® Accounts

In the event a customer has not renewed their OnStar® account after expiration or the account was never activated, OnStar® will make a discrete cellular call to the vehicle to deactivate the OnStar® system. Before taking this action, customers are notified that the OnStar® system in their vehicle will be deactivated unless they elect to renew the account. After the OnStar® account has been deactivated, customers will experience the following:

- The OnStar® status LED will not illuminate.
- The OnStar® system will NOT attempt to connect to the OnStar® Call Center in the event of a collision or if the vehicle's front air bags deploy for any other reason.
- An emergency button press will play a demo message indicating the service has been deactivated.
- An OnStar® Call Center button press will connect the customer with a dedicated sales team who can sell an OnStar® subscription and reactivate the vehicle. Depending on the type of OnStar® hardware in the vehicle, the customer may first hear a demonstration message stating there is no current OnStar® subscription for the vehicle, and directing the customer what to do to activate services.
- OnStar® personal calling will not be available, as this feature requires the customer to have a current OnStar® account. Attempts to use this feature may result in cellular connection failure messages and the inability to connect to the number dialed.

Certain vehicles that have never had an active OnStar® account, or that have been deactivated, may be unable to establish a connection with the OnStar® Call Center. When normal published diagnostic procedures do not indicate a possible cause for the no connect concern, the vehicle may have been deactivated. For deactivated vehicles, a no connect response should be considered normal operation. Further diagnosis and subsequent repair is only necessary should the customer elect to become an active OnStar® subscriber or renew the account subscription.

OnStar® Cellular, GPS, and Diagnostic Limitations

The proper operation of the OnStar® System is dependent on several elements outside the components integrated into the vehicle. These include the National Cellular Network Infrastructure, the cellular telephone carriers within the network, and the GPS.

The cellular operation of the OnStar® system may be inhibited by factors such as the users range from an analog or digital cellular tower, the state of the cellular carrier's equipment, and the location where the call is placed. Making an OnStar® key press in areas that lack sufficient cellular coverage or have a temporary equipment failure will result in either the inability of a call to complete with a data transfer or the complete inability to connect to the OnStar® Call Center. The OnStar® system may also experience connection issues if the identification numbers for the module, station identification number, electronic serial number or manufacturers electronic ID, are not recognized by the cellular carriers local signal receiving towers.

The satellites that orbit earth providing the OnStar system with GPS data have almost no failures associated with them. In the event of a no GPS concern, the failure will likely lie with the inability of the system to gain GPS signals because of its location, i.e. in a parking structure, hardware failure, or being mistaken with an OnStar® call which has reached the Call Center without vehicle data.

During diagnostic testing of the OnStar® system, the technician should ensure the vehicle is located in an area that has a clear unobstructed view of the open sky, and preferably, an area where analog or digital cellular calls have been successfully placed. These areas can be found by successfully making an OnStar® keypress in a known good OnStar® equipped vehicle and confirming success with the OnStar® Call Center advisor. Such places can be used as a permanent reference for future OnStar® testing.

Mobile Identification Number and Mobile Directory Number

The telematics communication interface control module utilizes 2 numbers for cellular device identification, call routing and connection, a mobile identification number and a mobile directory number. The mobile identification number represents the number used by the cellular carrier for call routing purposes while the mobile directory number represents the number dialed to reach the cellular device.

Operation of the OnStar® Speech Recognition Systems

OnStar® users communicate with 2 speech recognition systems. Speech recognition allows the user to speak to one computer in the vehicle, and one reached over a phone line. The computer tries to understand the users command, and responds by speaking back, or by taking the appropriate action, e.g. dialing the phone.

- Personal Calling uses a speech recognition system that resides in the vehicle. When the user presses the phone button, the system states, Ready, and listens for the user's command. The user can speak commands to control the hands-free phone.
- Virtual advisor is a remote speech recognition system that the caller can access by making a phone call. The user connects to virtual advisor by requesting it during personal calling use. The user is then transferred to the virtual advisor server and talks to it via a cellular connection.

The OnStar® speech recognition systems use speech technology that is designed to understand a wide range of American English speakers. Although there is no one right way to speak English, the system will work best when users try to modify their pronunciation should they encounter difficulty. Users who do not obtain good results are advised to try the tips and workarounds found in the Infotainment System Manual or the Owners Manual.

Firmware Over The Air

The Firmware Over The Air feature was designed to reflash software remotely. Remote reflash is an in-vehicle feature that enables the installation of a software package to update the infotainment system without requiring service test equipment to be physically connected to the vehicle. Remote reflash will utilize a long range or short range connection from the host module to a remote IT system. There must be an active OnStar account To receive Over The Air programming or updates. To verify the status of the account perform a blue button press and verify the account is active and connects with data and location. Customers need to accept the OnStar terms and conditions, and must have an active OnStar account to receive any Over The Air programming or updates.

Note: A data plan is not required to receive Over The Air programming or updates. Also the programming or updates do not consume a customers available data.

Note: Fleet vehicles must be activated as a Fleet account (not a business account) and require a separate Terms and Conditions agreement to be completed. Please see your fleet administrator for assistance with completing this agreement.

Radio/Audio System Description and Operation

The entertainment system on this vehicle may have several different configurations available to it. To determine the specific configuration of the vehicle, please see the Service Parts ID Label, and refer to *RPO Code List 0-8*.

The entertainment system on this vehicle is configured with either a base or an uplevel system. The base and uplevel systems each contain a radio, antenna, speakers, and on some systems an audio amplifier. The uplevel system differs from the base system by providing the customer with enhanced audio system features. Some of those features may include the radio data system (RDS), an audio amplifier, programmable equalizer (EQ), and digital satellite radio (U2K).

Each item in the list below represents topics covered in detail below.

- Radio Circuit Operation
- Antenna System
- AM/FM Reception
- Speaker Operation
- Radio Data System (RDS)
- Radio Data System (RDS) Messages
- MP3/CD Formatting Information for MP3/CD Radios (If equipped)
- Integral Multi Disc CD Changer (IMDX)
- Radio Error Messages
- Theft Deterrent
- Steering Wheel Controls
- Auxiliary Input Jack
- Speed Compensated Volume (SCV)
- Clock

Radio Circuit Operation

Radio Power

The radio is supplied power by a fused B+ circuit. The radio does not use a discrete ignition feed circuit for power moding. The power mode master (PMM) provides the system power mode to the radio via serial data messages. The PMM determines the system power mode by processing power mode information from ignition switch inputs. Serial data power modes supported by the radio are OFF, ACCESSORY, RUN, and CRANK REQUEST.

Radio Grounds

The vehicle harness provides a ground for the radio circuits. The radio may also be case grounded.

Radio Data Link Communication

The radio communicates with other modules via serial data.

Radio Outputs

At minimum volume, the plus (+) and minus (-) speaker outputs are approximately half battery voltage, measured to vehicle ground. As the volume increases, the plus and minus change to create a voltage difference between each other either driving the voice coil of the speaker, or being fed to an amplifier.

Radio Head Dimming

Dimming and backlighting levels are determined by the serial data messages the radio receives.

Antenna System

Fixed Mast Antenna

The fixed mast antenna can withstand most car washes without being damaged. If the mast should ever become slightly bent, straighten it out by hand. If the mast is badly bent, replace it.

Check occasionally to make sure the mast is still tightened to its base. If tightening is required, tighten by hand, then with a wrench one quarter turn.

AM/FM Reception

Radio Signal

The radio signal is sent from a broadcast station and is then received by an antenna. The strength of the signal received depends on the following:

- The power output (wattage) of the broadcasting station
- The location of the vehicle (or receiver) relative to the broadcast tower.
- Obstacles between the tower and the receiver
- Atmospheric conditions
- What band (AM or FM) the station is broadcasting
- Type of antenna and the ground plane

AM Reception

The AM band has a lower frequency range than the FM band. These longer wavelengths:

- Bend around Obstacles
- Follow the curvature of the earth
- May reflect off the ionosphere (skip)

The AM frequencies have longer range due to the ground wave. The ground wave follows the curvature of the earth and is effected by its conductivity. Greater conductivity equates to less signal loss thus transmission over water is better than over land. The AM band has a range of 80–320 km (50–200 miles).

FM Reception
The shorter wavelengths of the higher frequency FM band:

- Reflect off obstacles
- Are absorbed by the ground
- Penetrate the ionosphere

Broadcasts in the FM band are limited to line of sight reception which is typically 40 km (25 miles). Even when out of a direct line of sight, the signal may be reflected into areas that would be in a shadow otherwise. Factors which affect the line of sight include:

- Height of the broadcast antenna
- Height of the receiving antenna
- Terrain and buildings in the broadcast path

Speaker Operation

Speakers turn electrical energy into mechanical energy to move air, using a permanent magnet and an electromagnet. The electromagnet is energized when the radio or amplifier (if equipped) delivers current to the voice coil on the speaker. The voice coil will form a north and south pole that will cause the voice coil and the speaker cone to move in relation to the permanent magnet. The current delivered to the speaker is rapidly changing alternating current (A/C). This causes the speaker cone to move in two directions producing sound. When the speaker is at rest, such as when the volume at a minimum value, the voltage applied to each side of the speaker is ½ ignition system voltage. This way, the speaker cone can be moved in either direction.

Radio Data System (RDS) (If equipped)

The radio may be equipped with the Radio Data System (RDS). The RDS feature is available only on FM stations that broadcast RDS information. This system relies upon receiving specific information from these stations and only works when the information is available. While the radio is tuned to an FM-RDS station, the station name or call letters display.

RDS data is carried in what is known as a "subcarrier". A subcarrier is a frequency that the FM broadcaster is authorized to use to send data that is not audible in the main audio program.

- RDS functions will only work with FM broadcast stations that are broadcasting RDS data.
- Not all FM Broadcast stations broadcast RDS data or offer all of the RDS services.
- The information displayed is dependent upon the information broadcast by the particular station. The information may vary greatly between stations.
- RDS functions may not work properly when reception is weak, reception is of poor quality, or RDS is not implemented properly by the FM Broadcaster.
- In some cases, a radio station broadcasting incorrect information may cause the RDS features of the radio to appear to work improperly.

With RDS, the radio can do the following:

- Seek to stations broadcasting the selected type of programming
- Receive announcements concerning local and national emergencies
- Display messages from radio stations

RDS may display text information such as:

- The name of the station.
- The type of program.
- General information such as artist and song title, call in phone numbers, etc.

RDS Messages

- ALERT!: Alert warns of local or national emergencies. When an alert announcement comes on the current radio station, ALERT! displays. You will hear the announcement, even if the volume is low or a CD is playing. If a CD is playing, play stops during the announcement. Alert announcements cannot be turned off. ALERT! is not affected by tests of the emergency broadcast system. This feature is not supported by all RDS stations.
- INFO (Information): If the current station has a message, the information symbol or INFO displays. Press this button to see the message. The message can display the artist, song title, call in phone numbers, etc. If the entire message can not be displayed, parts of the message appear every three seconds. To scroll through the message, press and release the INFO button. A new group of words displays after every press of this button. Once the complete message has displayed, the information symbol or INFO disappears from the display until another new message is received. The last message is displayed by pressing the INFO button. View the last message until a new message is received or you tune to a different station.

MP3/CD Formatting Information for MP3/CD Radios

The MP3/CD equipped radios will play standard audio CDs, and MP3/WMA files that were recorded on a CD-R or CD-RW disc. Customers who record their own music CDs should be aware of the following:

- The radio will only play audio from a CD-R/RW, it cannot record audio.
- Standard audio and MP3/WMA files should not be mixed on a disc.
- Song title, artist name, and album can display when files are recorded using ID3 tags version 1 and 2.
- Long file, folder, or playlist names, or a combination of a large number of files and folders, or playlists can cause the player to be unable to play up to the maximum number of files, folders, playlists, or sessions.
- The radio supports multi-session discs, but only the files from the last session will be played.

Integral Multi Disc CD Changer (IMDX) (If equipped)

The integral multi disc CD changer has the capability of storing and playing up to six (6) compact discs. The integral multi disc CD changer has a shock-absorbing system. Only under extreme operating temperatures or severe shock or vibration should the compact disc player skip or mute. If the customer travels an abnormally rough road, a skip condition may be normal. Test drive the vehicle on a normal road with a known good CD. If the condition is still present, replace the radio. The use of CD lens cleaner discs is not advised, due to the risk of contaminating the lens of the CD optics with lubricants internal to the CD mechanism.

The CD mechanism within the ICDX radio will begin an initialization routine after a battery connect (e.g., connecting radio connector X1). The initialization process takes approximately 25 seconds to complete. It is very critical that the initialization is completed before removing battery power from the radio, in order for the complex moving parts of the CD mechanism to be positioned properly before shipping and/or handling purposes. Damage may result to the moving parts of the CD mechanism if battery power is removed during the initialization routine. The damage occurs to the CD mechanism during subsequent shipping or handling operations. The extent of the damage causes the CD mechanism not to recover and the mechanism becomes inoperative.

Radio Error Messages

The Radio may display the following Error Messages (Not all messages may be applicable):

- ERR: This message is displayed when the radio is unable to play the inserted cassette or CD
- LOC: This message is displayed when the radio has entered Theft mode.
- CAL/CAL ERR: This message is displayed when the radio has detected an invalid calibration.
- CDX ERR: Displays if communication is lost with the remote CD changer.
- CHECK CD: Displays when the player encounters a focus or tracking error.
- CHK CDXX: Displays when the CD changer encounters a focus or tracking error .
- CHK TAPE: Displays if a tape has been inserted but is unable to be played due to an error.
- DOOR OPEN: Displays when the CD changer door has been left open.
- NO DISC: Displays when the radio expected a disc to be inserted.
- NONE: Displays when the radio is unable to detect the vehicle speed data information via the serial data circuit.

If an error message is displayed, perform the appropriate diagnostics.

Theft Deterrent

The radio theft deterrent system is intended to disable or limit radio functionality if incorrect vehicle information is received by the radio. The radio disables functionality if the VIN information received by the radio does not match the VIN information that has been learned by the radio. A VIN sequence is the last 6 digits of the VIN. The radio receives this information via serial data. A possible cause of incorrect VIN info could be the radio was originally installed in another vehicle.

The radio has the following theft operating modes as part of the theft deterrent system:

- Normal Mode--A radio has received a VIN sequence. The radio only learns the VIN sequence if the VIN sequence contained all 6 digits. In this mode the radio has full functionality.
- No VIN Mode--A radio that has not received or learned a VIN. In this mode the radio has limited functionality.
- Theft Detected Mode--A radio that had previously learned a VIN sequence and subsequently received a VIN sequence not matching the learned sequence. In this mode the radio has limited functionality.

Steering Wheel Controls (if equipped)

Some audio functions are available using the steering wheel controls. The steering wheel controls duplicate the function of the primary controls available on the radio.

For additional information on steering wheel controls, refer **Steering Wheel Controls Description and Operation** .

Using the Auxiliary Input Jack (if equipped)

The radio system may have a 3.5 mm auxiliary input jack located on the faceplate. An external audio device such as an MP3 player, CD changer, laptop computer, cassette tape player, etc. can be connected to the auxiliary input jack for use as another source for audio listening. This is not an audio output; do not plug a headphone set into the front auxiliary input jack.

To use a portable audio player, connect a 3.5 mm (1/8 inch) cable to the radio's front auxiliary input jack. While a device is connected, press the radio CD/AUX button to begin playing audio from the device over the vehicle speakers. If there is a CD in the player, pressing the button once will play the CD, pressing again will switch it to the AUX feature.

Speed Compensated Volume (If equipped)

With Speed Compensated Volume (SCV), the audio system will adjust automatically to make up for road and wind noise as you drive, by increasing the volume as vehicle speed increases. To use SCV, set the volume at the desired level, and then select either Low, Medium, or High. To turn SCV off, select the Off screen button.

Clock

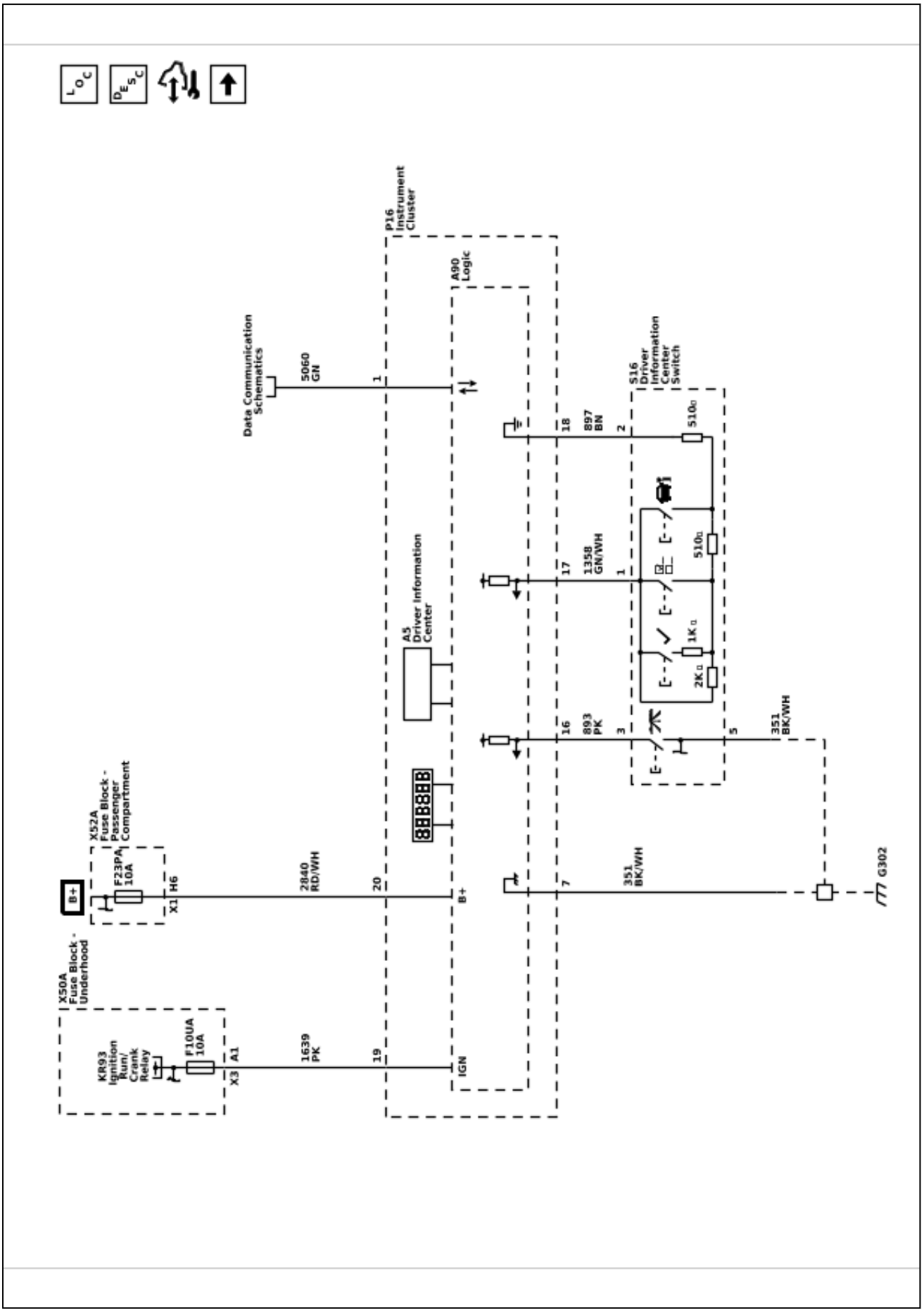
The digital clock will display on the infotainment display screen. When the Auto Set feature is turned on the time and date will automatically update via the cellular connection of the OnStar module. With certain versions of OnStar (Gen 10) the Auto Set feature will not update during ignition off/Retained Accessory Power. Once the ignition is turned on the Auto Set feature will update and the clock will display the current time and date.

Displays and Gauges

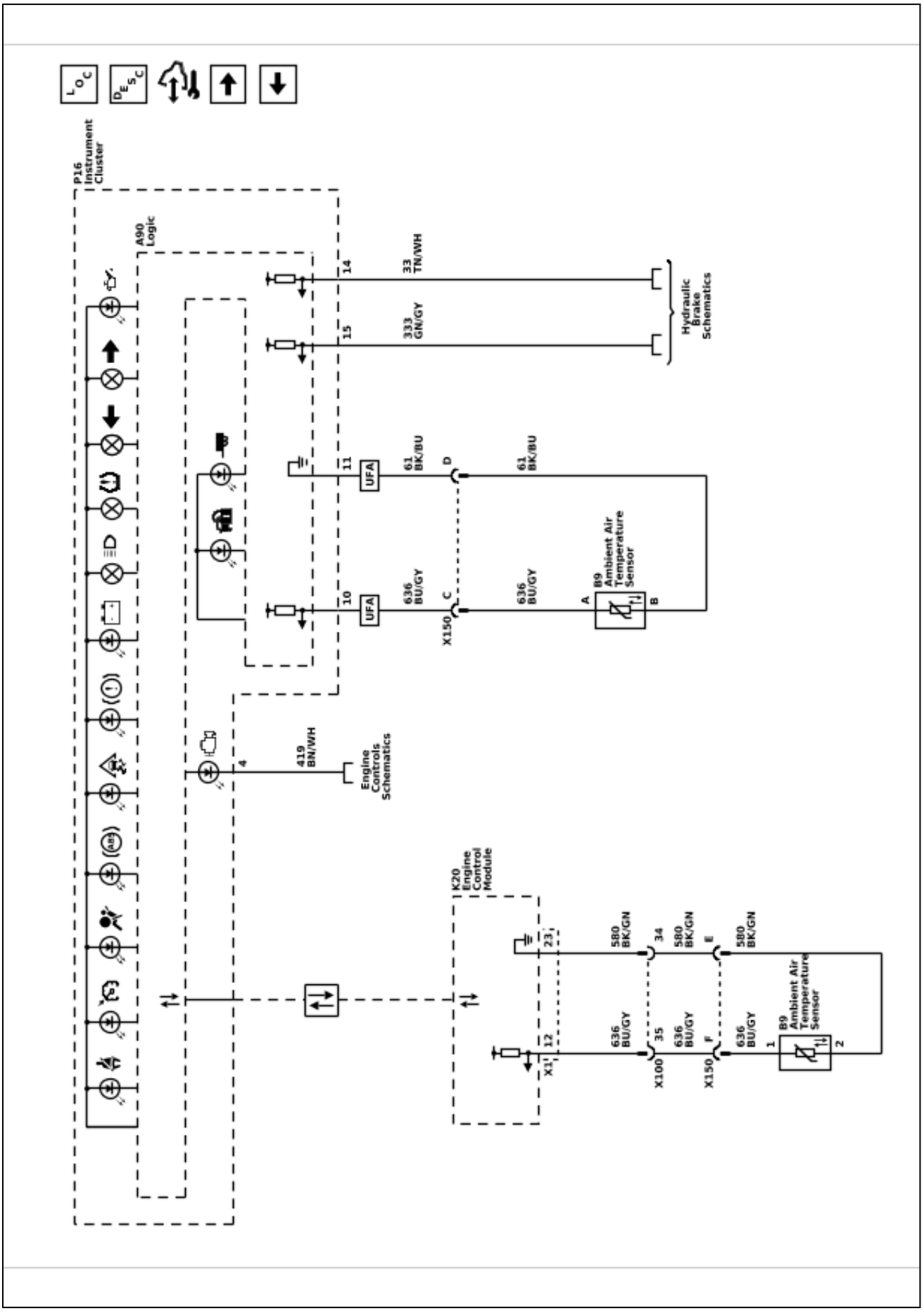
Schematic and Routing Diagrams

6600139

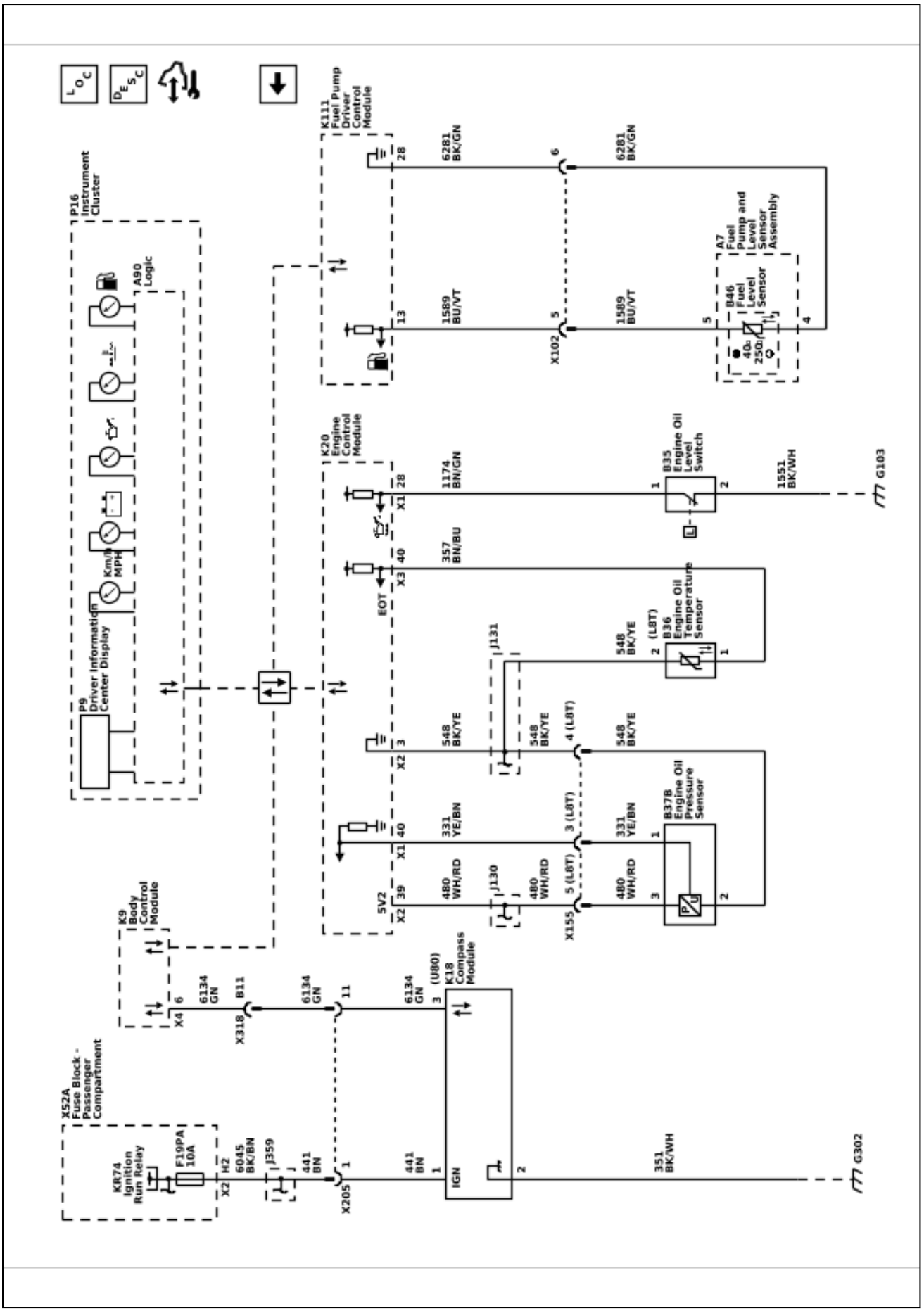
Instrument Cluster Schematics (Power, Ground and Driver Information Center Switch)



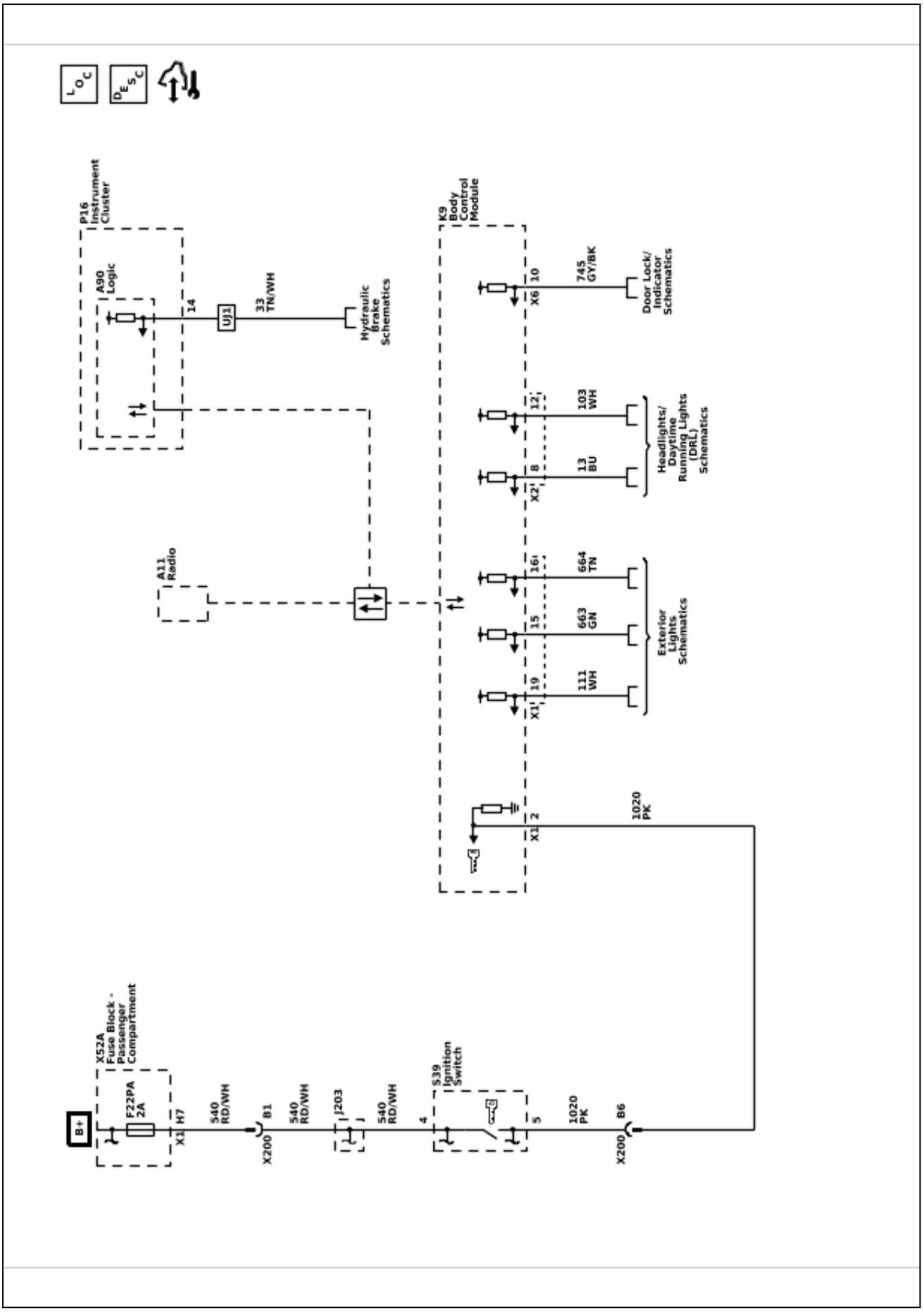
Instrument Cluster Schematics (Indicators)



Instrument Cluster Schematics (Gauges)



Audible Warnings Schematics (Audible Warnings)



Description and Operation

Audible Warnings Description and Operation

The audible warnings alert the driver of a system concern or a critical vehicle condition. The radio generates the audible warning through the left front speaker. The radio receives audible warning requests via the serial data circuit. If the radio receives multiple audible warning requests, the warning with the highest priority sounds first. On vehicles without a radio, a chime module generates the audible warnings and receives audible warning requests via the serial data circuit. Either the radio or the chime module is the chime procedure. The following lists the audible warning priority and the pulse rate:

1. Fast rate chime—200 pulses per minute
2. Medium rate chime—150 pulses per minute
3. Slow rate chime—50 pulses per minute
4. Single chime

Fasten Safety Belt Warning

The chime producer activates the fasten safety belt audible warning as requested by the body control module (BCM). The BCM sends a serial data message to the audio amplifier indicating the chime frequency at a slow rate and a duration of 8 seconds. The fasten safety belt warning sounds and the fasten safety belt indicator illuminates when the following occurs:

- The ignition switch transitions to ON.
- The inflatable restraint sensing and diagnostic module (SDM) detects that the drivers seat belt is not buckled and the signal is low. The SDM sends a serial data message to the BCM indicating the seat belt status. The instrument panel cluster (IPC) receives a serial data message from the BCM indicating the driver seat belt status.

If the seat belt is buckled when the ignition is turned ON, the chime does not sound. If the seat belt is buckled while the chime is sounding, the chime stops. If the seat belt is unbuckled after the initial transition to ON, the chime does not sound.

Lights On Warning

The chime producer activates the lights on warning as requested by the body control module (BCM). The BCM sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration. The lights on warning sounds when the following occurs:

- The ignition is OFF.
- The BCM determines that the driver door is open and the signal circuit is low.
- The BCM determines that the headlamp switch is in the park or head position.

Brake Warning

The chime producer activates the brake audible warning as requested by the instrument panel cluster (IPC). The IPC sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration. The brake warning sounds and the BRAKE indicator illuminates when the following occurs:

- The ignition is ON.
- The vehicle speed is greater than 8 km/h (4.9 mph). The IPC receives a serial data message from the engine control module (ECM) indicating the vehicle speed.
- The IPC determines that the park brake is engaged and the signal circuit is low.
- The brake fluid is low.
- The Traction Control System (TCS) and the Vehicle Stability Enhancement System (VSES) have failed.

Key-In-Ignition Warning

The chime producer activates the key-in-ignition audible warning as requested by the body control module (BCM). The BCM sends a serial data message to the chime producer indicating the chime frequency of a medium rate and continuous duration. The key-in-ignition warning sounds when the following occurs:

- The ignition switch is OFF.
- The BCM determines that the driver door is open and the signal circuit is low. The IPC also receives a serial data message from the BCM indicating the door ajar status
- The BCM determines that the key-in-ignition switch is open and the signal circuit is high. The IPC receives a serial data message from the BCM indicating the key-in-ignition status.

Door Ajar Warning

The chime producer activates the door ajar audible warning as requested by the body control module (BCM). The BCM sends a serial data message to the chime producer indicating the chime frequency of a medium rate and continuous duration. The door ajar warning sounds and the appropriate door ajar indicator illuminates in the drivers information center (DIC) when the following occurs:

- The BCM determines that a door (driver door, passenger door, left rear door, right rear door) is open and the signal circuit is low. The IPC also receives a serial data message from the BCM indicating the door ajar status.
- The vehicle is not in PARK. The BCM receives a serial data message from the engine control module (ECM)/BCM indicating the gear position.

Additional Warnings

The following warnings have an associated instrument panel cluster (IPC) indicator or driver information center (DIC) message:

- Battery Voltage Low Message—The chime producer activates the audible warning as requested by the body control module (BCM). The BCM sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration.
- Cargo Open Door Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a medium rate and at a finite duration.
- Clean Exhaust Filter Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a medium rate and at a finite duration.
- Engine Overheated Stop Engine Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration.
- Engine Power Is Reduced Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a medium rate and at a continuous duration.
- Fuel Level Low Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration.
- Oil Pressure Indicator—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration.
- Tire Pressure Low Indicator—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration.
- Turn Signal Indicators—The chime producer activates the audible warning as requested by the IPC. The chime produces two different chimes, one when the turn signal turns off and another when the turn signal turns on.
- Vehicle Dynamics Caution Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration.
- Vehicle Overspeed Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a medium rate and at a finite duration.
- Transmission Hot Idle Engine Message—The chime producer activates the audible warning as requested by the BCM. The BCM sends a serial data message to the chime producer indicating the chime frequency of a fast rate and at a continuous duration.

Refer to *Indicator/Warning Message Description and Operation 2-29*.

Driver Information Center (DIC) Description and Operation

The driver information center (DIC) displays the DIC WOW for 5 seconds when it first powers up. If enabled through Personalization, the DIC then returns to the last display status before no power condition.

There are 4 switch functions for the DIC.

- Personalization
- Set/Reset
- Trip/Fuel
- Vehicle Information

Trip/Fuel

The Trip/Fuel switch is used to navigate between vehicle information parameters. Cycle through the following vehicle parameters by successive pressing of the Trip/Fuel switch.

- Average Fuel Economy (AFE)
- Average Vehicle Speed (AV5)
- Blank Display
- Elapsed Time
- Fuel Range
- Fuel Used
- Instantaneous Fuel Economy (IFE)/ Active Fuel Management (AFM)
- Season Odometer
- Trip A
- Trip B

Vehicle Information

The vehicle information switch is used to navigate between vehicle information parameters. Cycle through the following vehicle parameters by successive pressing of the vehicle information switch.

- Blank Display
- Compass Zone Setting
- Compass Recalibration
- Display Units Menu
- Front Tire Pressures
- Fuel Filter Life
- Hourmeter
- Key Fob Programming Menu
- Left Front Tire Pressure
- Left Rear Tire Pressure
- Oil Life Index (OLI)
- Rear Tire Pressures
- Right Front Tire Pressure
- Right Rear Tire Pressure
- Tire Programming Menu

Personalization

The personalization switch is used to set personalization features for both the vehicle and the driver. Many of the parameters in the Trip/Fuel menu and the Vehicle Information menu can be programmed through the personalization switch. In addition to the parameters in the Trip/Fuel and Vehicle Information menus, the following features can also be programmed.

- Approach Lighting
- Automatic Door Lock
- Automatic Door Unlock
- Chime Volume
- Delayed Door Lock
- Display Language
- Elevated Idle
- Exit Lighting
- Remote Door Lock
- Remote Door Unlock

Average Fuel Economy
Average fuel economy is calculated using the equation: AFE = Distance/Fuel

- Distance = The accumulated distance travelled since the last reset of this value
- Fuel = The accumulated fuel consumption since the last reset of this value

The engine control module (ECM) sends the average fuel economy serial data message to the instrument panel cluster (IPC). The value of this mode is retained during ignition OFF and can be changed between English units and metric units by selecting from the driver information center (DIC) options menu.

Average Vehicle Speed
Average speed is calculated using the equation: Average Vehicle Speed = AVS Distance/AVS Time

- Distance = The accumulated distance travelled since the last reset of this value
- Ignition On = The accumulated ignition on time since the last reset of this value

Elapsed Time
The timer records elapsed time starting from activation. When the DIC displays the timer, pressing the Set/Reset switch for 3 seconds on the DIC resets the timer. Pressing the Set/Reset button on the DIC switch for approximately 1 second starts and stops the timer. The DIC displays the timer in one of the following formats:

The DIC displays the timer in the following format: XX: XX:XX:

The first XX represents hours elapsed, the second XX represents minutes elapsed, and the third XX represents seconds elapsed. The maximum range of the timer is 99 hours, 59 minutes, and 59 seconds. After the maximum range is reached, the timer displays all zeros (00:00:00).

Fuel Range
This message indicates the estimated distance that the vehicle can travel under the current fuel economy and fuel level conditions since the last battery connection to the IPC. Fuel Range is calculated using the equation:

Fuel Range = Range Distance X Fuel Total Capacity/ Range Fuel Used.

- Range Distance = The accumulated distance travelled since the last reset of this value.
- Fuel Used = The accumulated fuel delivered since the last reset of this value

The ECM sends the fuel range value to the IPC. The IPC receives a serial data message with fuel information. The fuel range value is retained during ignition OFF and can be changed between English and Metric units by accessing the DIC English/Metric menu. The Fuel Range display cannot be reset. LOW is displayed when fuel range is below a predetermined value.

Fuel Used
The DIC calculates and displays the total amount of fuel used since the last reset operation. You can reset the fuel used mode by depressing and holding the Set/ Reset button for more than 3 seconds. The value of this mode is retained during ignition OFF.

Instantaneous Fuel Economy (IFE)
Instantaneous fuel economy (IFE) is calculated using the equation: IFE = Distance/Fuel Used.

- Distance = The accumulated distance travelled for the last 2 seconds
- Fuel = The accumulated fuel delivered for the last 2 seconds

The IPC receives a serial data message from the ECM. The distance information is calculated by the IPC using the vehicle speed information from the ECM. These values are retained during ignition OFF and can be changed between English and Metric units accessing the DIC English/Metric menu. The IFE display cannot be reset.

Oil Life Remaining
The ECM sends the oil life remaining percentage to the IPC via a serial data message. The instrument panel cluster receives a serial data message indicating the engine oil life remaining. The DIC displays the current percentage of the GM Oil Life System as determined by the ECM. For more information, refer to Engine Oil Life Reset.

Tire Pressure Monitor
The IPC receives a serial data message from the tire pressure monitoring (TPM) system for front and rear tire pressure data. The DIC will display the pressure for each of the front and rear tires. When a tire with low air pressure is present, the DIC displays XXXX XXXX TIRE PRESSURE LOW.

Fuel Display

Parameter	Update Rate	Range	Reset Value	Units
Average Fuel Economy	1 second	0.0 – 99.9	99.9	MPG or L / 100 KM
Instant Fuel Economy	2 seconds	0 – 70	N/A	MPG or L / 100 KM
Fuel Range	1 second	0 – 999	N/A	MI/KM
Fuel Used	1 second	0 – 999.9	0.0	Gal/L

English/Metric

The English/Metric mode is used to toggle between English and Metric units and can be accessed through the driver information center (DIC) vehicle information switch.

Trip A/B

The trip odometer A or B can be accessed through the DIC Trip/Fuel switch function.

Trip Display

DIC Trip Display	Range	
	Metric	English
ODOMETER	######km	######MI
TRIP A	####.#km	####.#MI
TRIP B	####.#km	####.#MI

Language

The driver information center (DIC) is capable of displaying in 4 languages

- English
- French
- Spanish
- Arabic

Fuel Filter Life

The engine control module (ECM) sends the fuel filter life remaining percentage to the instrument panel cluster (IPC) via the serial data circuit. The instrument panel cluster receives a serial data message indicating the fuel filter life remaining. The driver information center (DIC) displays the current percentage of the fuel filter life as determined by the ECM. When the fuel filter life remaining parameter drops below 5 percent, the DIC displays the CHANGE FUEL FILTER message. The fuel filter life parameter can be reset by pressing the Set/Reset switch for 2 seconds. The fuel filter life parameter only applies to vehicles equipped with diesel engine.

Compass (without Onstar)

The driver information center (DIC) displays the compass based on serial data message from the BCM. The compass module communicates with the body control module (BCM) through a bi-directional data circuit. The instrument panel cluster (IPC) receives compass information from the BCM via the serial data circuit. The compass is displayed in the DIC with other vehicle information and is at the bottom line of the DIC. The compass display shows “- -” when a malfunction is present with the compass module or a compass serial data communication fault exists. The compass displays 'CAL' or 'C' when the compass needs to be calibrated. Cycle the ignition before performing the compass magnetic variation adjustment procedure.

Check that the compass module is properly installed in the vehicle since this may cause the compass to malfunction. The embossed arrow on the top of the compass module should be parallel to the centerline of the vehicle.

Compass (with Onstar)

The driver information center (DIC) displays the compass based on serial data message from the Vehicle Communication Interface Module (VCIM). The compass is displayed in the DIC with other vehicle information and is at the bottom line of the DIC. The compass displays 'CAL' or 'C' when the DIC has not received compass information from the VCIM.

Ambient Air Temperature

The ambient air temperature is read by the instrument panel cluster (IPC) and displayed in the driver information center (DIC). The IPC provides the logic for reading the outside air temperature sensor. The IPC is responsible for displaying the temperature and converting to Fahrenheit. The instrument panel cluster (IPC) applies 5 volts to the ambient air temperature sensor. The ambient air temperature sensor is a thermistor which varies in resistance as the temperature changes. As the resistance of the ambient air temperature sensor increases, the IPC senses a larger voltage drop across the sensor, indicating a lower temperature. As the resistance of the ambient air temperature sensor decreases, the IPC senses a smaller voltage drop across the sensor, indicating a higher temperature. The IPC is responsible for displaying the temperature and converting to degrees Fahrenheit if necessary.

If the ambient air temperature sensor resistance is less than 328 ohms, the IPC displays 'SC' (short circuit) in the DIC and this corresponds to a temperature of 125°C (257°F). If the ambient air temperature sensor resistance is greater than 353.37K ohms, the IPC displays 'OC' (open circuit) in the DIC and this corresponds to a temperature less than −40°C (−40°F). The IPC displays '– –' in the DIC when the IPC receives an invalid signal or a loss of serial data communication.

Indicator/Warning Message Description and Operation

INDICATOR LIGHT ON

Refer to the OWNER’S MANUAL for the descriptions and explanations of all indicator lights.

For diagnosis and repair information related to an indicator light refer to the System Diagnosis and the Description of Operation that the message relates to.

MESSAGE DISPLAYED

Refer to the OWNER’S MANUAL for descriptions and explanations of all messages displayed.

For diagnosis and repair information related to a displayed message refer to the System Diagnosis and the Description of Operation that the message relates to.

CHANGE TIMING BELT MESSAGE (without LWN/LIH)

The Instrument Cluster monitors the odometer mileage to determine when timing belt (if equipped) replacement may be necessary. After the vehicle has accumulated approximately 100,000 miles (160,000 kilometers), the Instrument Cluster may display the CHANGE TIMING BELT message. After the engine timing belt has been replaced, reset the CHANGE TIMING BELT message by locating and removing the fuses that supply power to the Instrument Cluster for two minutes.

CHANGE TIMING BELT MESSAGE (LWN/LIH)

The Instrument Cluster monitors the odometer mileage to determine when timing belt replacement may be necessary. After the vehicle has accumulated approximately 150,000 miles (240,000 kilometers), the Instrument Cluster may display the CHANGE TIMING BELT message. After the engine timing belt and oil pump drive belts have been replaced, reset the CHANGE TIMING BELT message by performing the Instrument Cluster control function Timing Belt Life Reset (if available), using the scan tool. Without scan tool control function, reset the CHANGE TIMING BELT message by locating and removing the fuses that supply power to the Instrument Cluster for two minutes.

BRAKES OVERHEATED

The Electronic Brake Control Module monitors brake usage and compares it to an internal thermal model to determine if the brakes could become overheated. If the Electronic Brake Control Module determines the brakes pads have exceeded a desirable temperature based on the thermal model, it sends a serial data message to the Instrument Cluster to display the BRAKES OVERHEATED message. The message remains displayed until the estimated temperature returns to a desirable range.

Transmission Shift Lever Position Indicator

The Transmission Shift Lever Position Indicator (if equipped) is located on the center console and indicates the current transmission shift lever position. The Transmission Shift Lever Position Indicator receives power and ground and is controlled by the Body Control Module (BCM) via serial data. The Transmission Control Module determines transmission shift lever position based on signals from the Transmission Internal Mode Switch and sends the shift lever position information to the BCM via serial data.

Instrument Cluster Description and Operation

Displays Test

Certain instrument panel cluster (IPC) features are tested when the ignition is turned on in order to verify the features are working properly. The following occurs at key up:

- The air bag indicator flashes 7 times (not IPC controlled).
- The ABS indicator illuminates briefly.
- The battery indicator illuminates briefly.
- The brake indicator illuminates briefly.
- The cruise engage indicator illuminates briefly.
- The engine oil pressure indicator illuminates briefly.
- The malfunction indicator lamp (MIL) illuminates briefly (not IPC controlled).
- The seat belt indicator illuminates for 70 seconds or until the driver seat belt is latched (not IPC controlled).
- The security indicator illuminates briefly.
- The tire pressure low indicator illuminates briefly.
- The vehicle dynamics caution (VDC) indicator illuminates briefly.
- All segments of the driver information center (DIC) illuminate briefly.
- All odometer segments illuminate briefly.
- The PRNDL segment illuminates briefly.

Indicators and Warning Messages

Refer to *Indicator/Warning Message Description and Operation 2-29* , *Data Link Communications Description and Operation 5-15* , and *Body Control System Description and Operation 5-14*.

Engine Coolant Temperature Gauge

The instrument panel cluster (IPC) displays the engine coolant temperature as determined by the engine control module (ECM). The IPC receives a serial data message from the ECM indicating the engine coolant temperature. The engine coolant temperature gauge defaults to 60°C (140°F) or below if:

- The ECM detects a malfunction in the engine coolant temperature sensor circuit.
- The IPC detects a loss of serial data communications with the ECM.
- The body control module (BCM) detects a loss of serial communications with the ECM.

Fuel Gauge

The instrument panel cluster (IPC) displays the fuel level as determined by the ECM. The IPC receives a serial data message from the ECM indicating the fuel level percent. The fuel gauge defaults to empty if:

- The ECM detects a malfunction in the fuel level sensor circuit.
- The IPC detects a loss of serial data communications with the ECM

The fuel level sensor changes resistance in response to the fuel level. When the fuel tank is full, the sensor resistance is low and the ECM senses a low signal voltage. When the fuel tank is empty, the sensor resistance is high and the ECM senses a high signal voltage. The ECM uses the signal circuit of the fuel level sensor in order to calculate the percentage of remaining fuel in the tank. The ECM sends the fuel level percentage via the serial data circuit to the instrument cluster in order to control the fuel gauge. When the fuel level is less than a pre-determined value, the low fuel indicator illuminates in the IPC.

Fuel Gauge CNG

The alternative fuel tank pressure sensor is a 3-wire sensor comprising of the signal circuit, the low reference circuit and a 5 V reference circuit. The compressed natural gas control module (CNGCM) monitors the signal of the pressure sensor to determine the amount of pressure in the tank. The CNGCM uses this signal in order to calculate the percentage of remaining gas in the tank and converts it to a PWM signal sent to the ECM. The ECM sends the fuel level percentage via the serial data circuit to the instrument cluster in order to control the fuel gauge.

Fuel Gauge LPG

The liquid propane gas control module monitors the signal of the of the primary fuel level sensor to determine the amount of liquid propane in the tank. The liquid propane gas control module uses this signal in order to calculate the percentage of remaining liquid propane gas in the tank and converts it to a PWM signal sent to the ECM. The ECM sends the fuel level percentage via the serial data to the instrument cluster in order to control the fuel gauge.
The secondary fuel level sensor is only used as a input to the liquid propane gas control module to transfer fuel to the primary tank. The primary and secondary fuel level sensors have a resistance value of 40 to 240 Ohms. When the fuel tank is full, the resistance of the sensor should be around 40 Ohms and around 240 Ohms when empty.

Outside Air Temperature (wired to ECM)

The Ambient Air Temperature Sensor is located behind the grille and varies it's resistance with temperature. The Engine Control Module (ECM) reads the resistance value to determine temperature. This temperature signal is used by the ECM for powertrain purposes and is not used to display an outside temperature for the driver.

Outside Air Temperature (wired to Instrument Cluster) with UFA

A second Ambient Air Temperature Sensor may be located behind the grille and varies it's resistance with temperature. The Instrument Cluster reads the resistance value to determine temperature. The time of and rate of the temperature update is based on an algorithm in the Instrument Cluster software. Factors such as, last reading, current reading, length of time vehicle is been off/on, power mode, vehicle speed, driven distance, and sensor location are all considered by the Instrument Cluster to know when to update the displayed temperature. For example, if the sensor is located near the engine compartment, and the vehicle has been turned off for only 10 minutes then restarted, the Instrument Cluster will wait until the vehicle is driven to get more accurate air flow across the sensor before it updates the display.

Vehicles without UFA may still be equipped with this Ambient Air Temperature Sensor located behind the grille and wired to the Instrument Cluster. This sensor is not used for any purpose and does not affect engine control operations or contribute air temperature display functions in any way.

Odometer

The vehicle odometer is calculated and stored electronically in the instrument panel cluster (IPC). The IPC contains a season odometer and trip odometer A or B. Momentarily press the DIC trip/fuel button on the IPC in order to toggle between the season odometer and the trip odometer. Press the DIC set/reset button for greater than 0.25 seconds, while the trip odometer is displayed, in order to reset the trip odometer. The IPC displays the vehicle mileage and trip mileage as determined by the IPC. The IPC calculates the mileage based on the serial data vehicle speed information from the ECM. The odometer will display 'error' if an internal IPC memory failure is detected. The odometer displays either miles or kilometers and can be set through the personalization programming menu in the DIC.

PRNDL Display

The IPC displays the selected gear position as determined by the ECM. The IPC receives a serial data message from the ECM indicating the gear position. The PRNDL display blanks if:

- The ECM detects a malfunction in the transmission range switch circuit.
- The IPC detects a loss of serial data communications with the ECM.

Speedometer

The IPC displays the vehicle speed as determined by the ECM. The IPC calculates the mileage based on the serial data vehicle speed information from the ECM. The speedometer defaults to 0 km/h (0 mph) if the IPC detects a loss of serial data communications with the ECM.

Battery Gauge

The instrument panel cluster (IPC) displays the voltage as determined by the regulated voltage control (RVC). The IPC receives a serial data message from the BCM indicating the battery voltage. When the engine is ON, the gauge should be between 10–16 volts. The gauge will default to 0 volts if the IPC detects a loss of communication with the BCM.

Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rear Vision Camera (UVC))

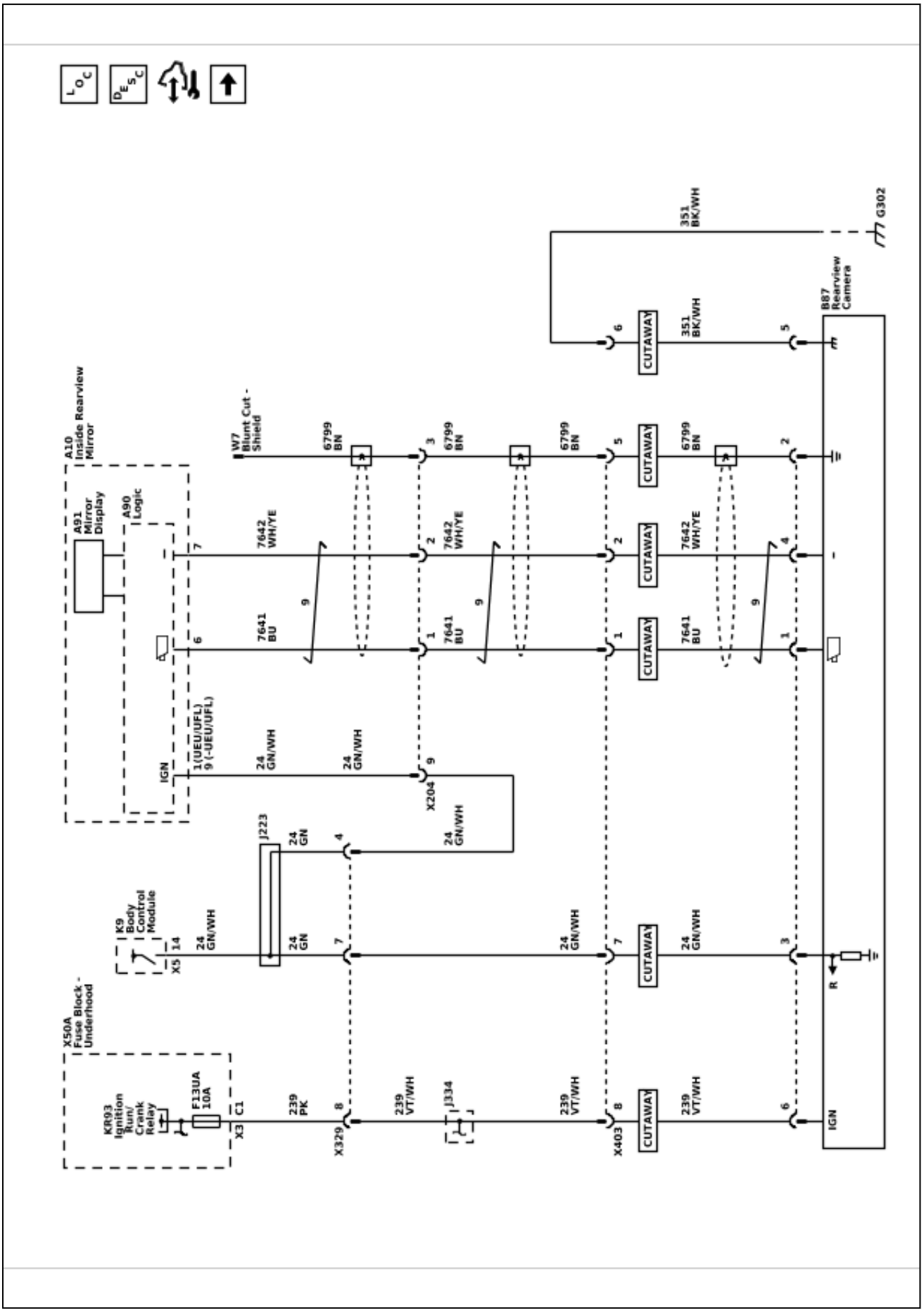
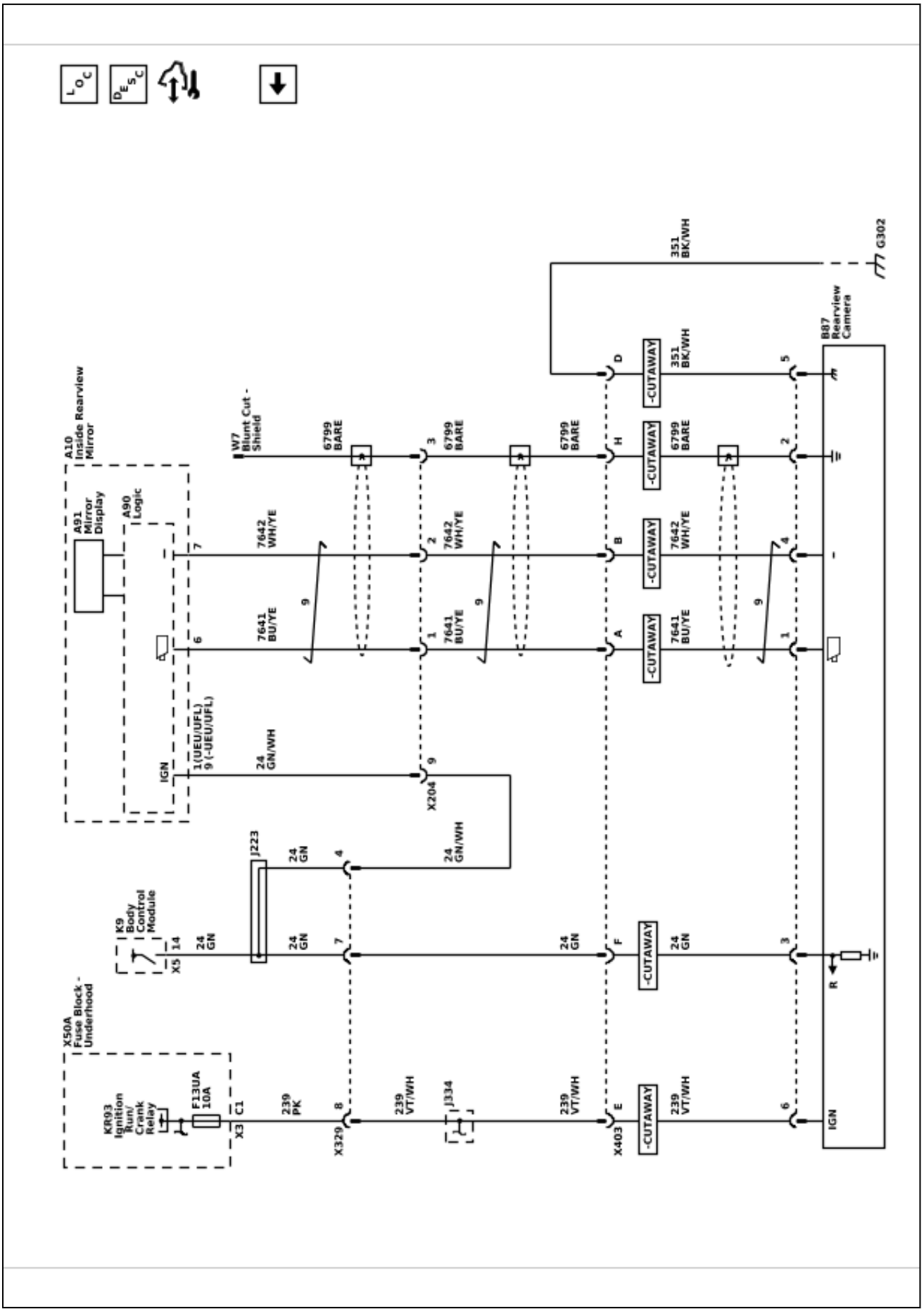


Image Display Camera Schematics (Rear Vision Camera (UVC))



Description and Operation

Rear Vision Camera Description and Operation

The rear vision camera system consists of the rearview camera and the infotainment system.

When the transmission is placed into R, 12 V is applied to the reverse lamp control circuit by the body control module (BCM). The rearview camera monitors this circuit and when 12 V is seen, indicating that the transmission is in R, the rearview camera will activate. The rearview camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rearview camera to the infotainment system. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and cause a degraded video image. The shield is grounded by the rearview camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

Section 3

Engine/Propulsion

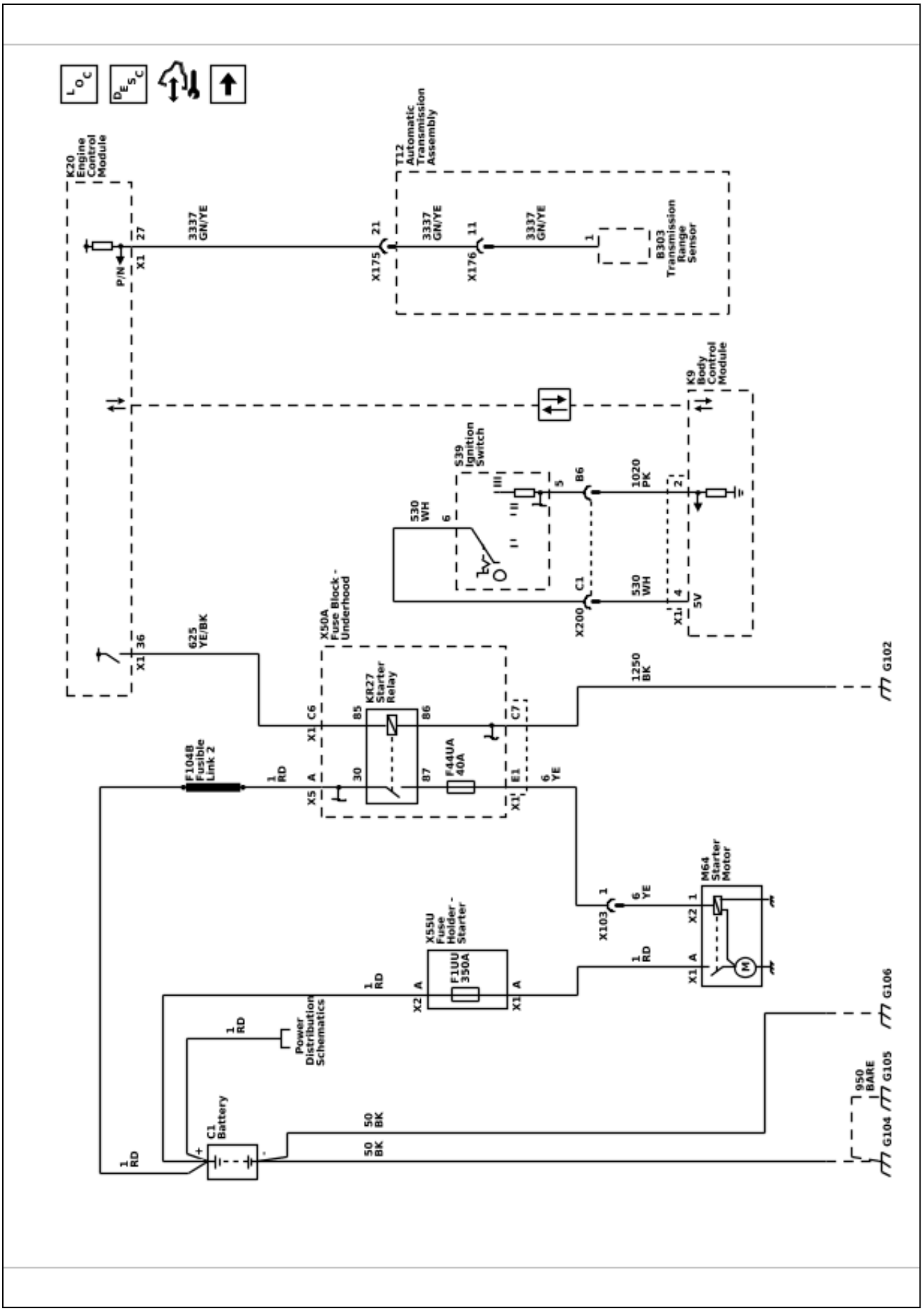
Starting, Charging, and Low Voltage Energy Storage **3-2**
Schematic and Routing Diagrams **3-2**
Starting and Charging Schematics 3-3
Description and Operation **3-8**
Electrical Power Management Description and Operation (Gasoline) 3-8
Electrical Power Management Description and Operation (Diesel) 3-9
Starting System Description and Operation 3-10

Engine/Propulsion

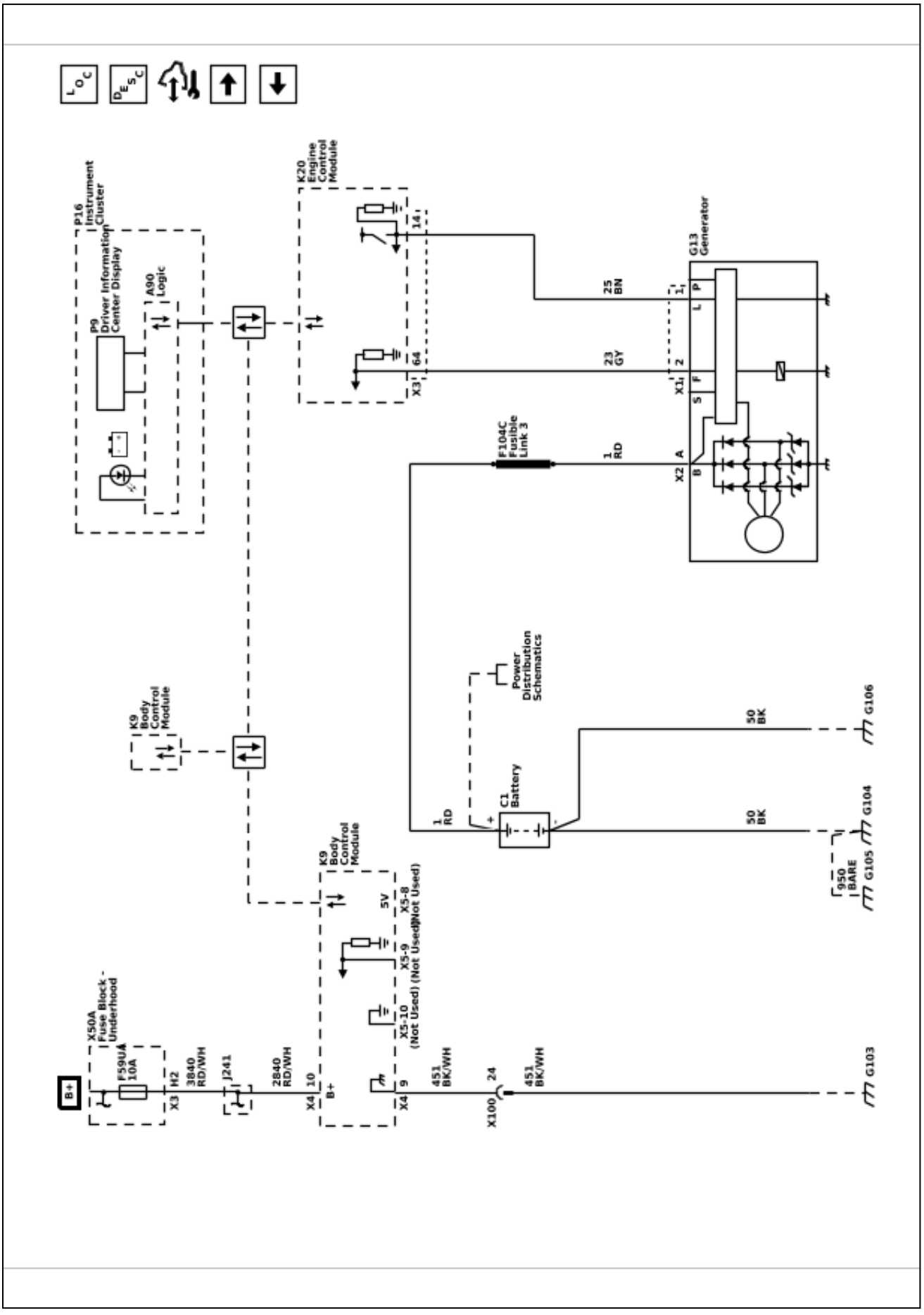
Starting, Charging, and Low Voltage Energy Storage

Schematic and Routing Diagrams

Starting and Charging Schematics (Starting System - One Battery)



Starting and Charging Schematics (Charging System - One Battery)



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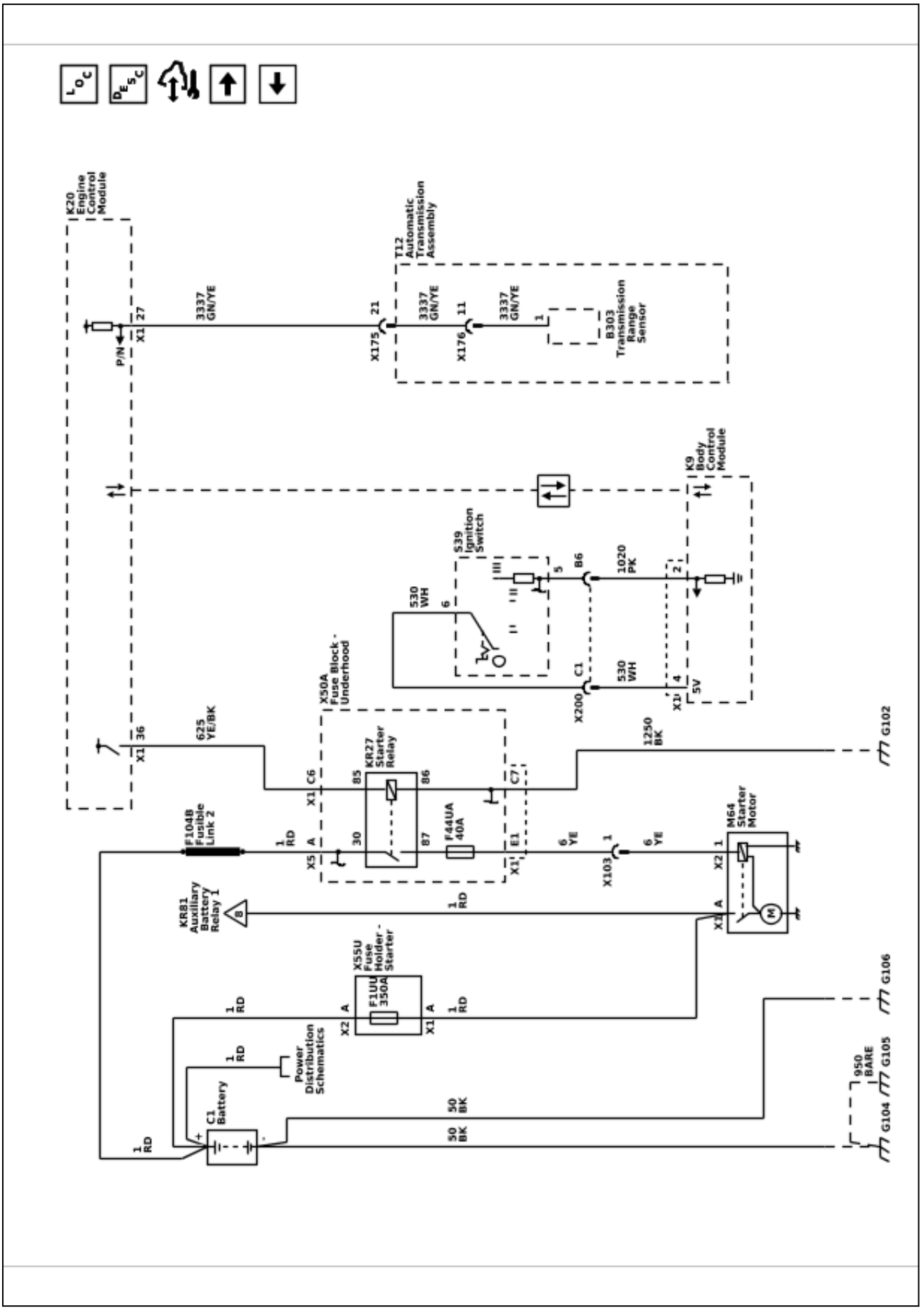
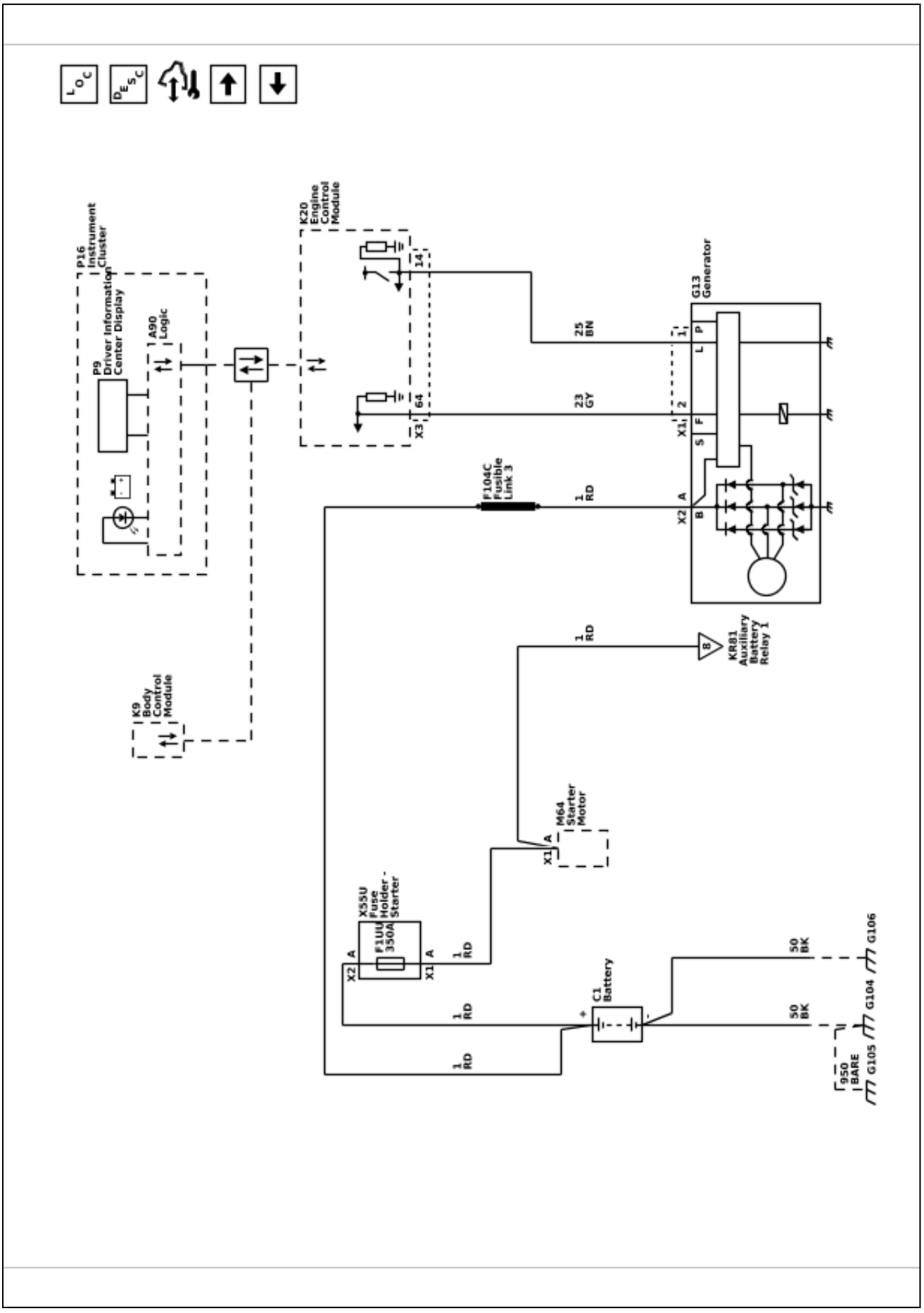
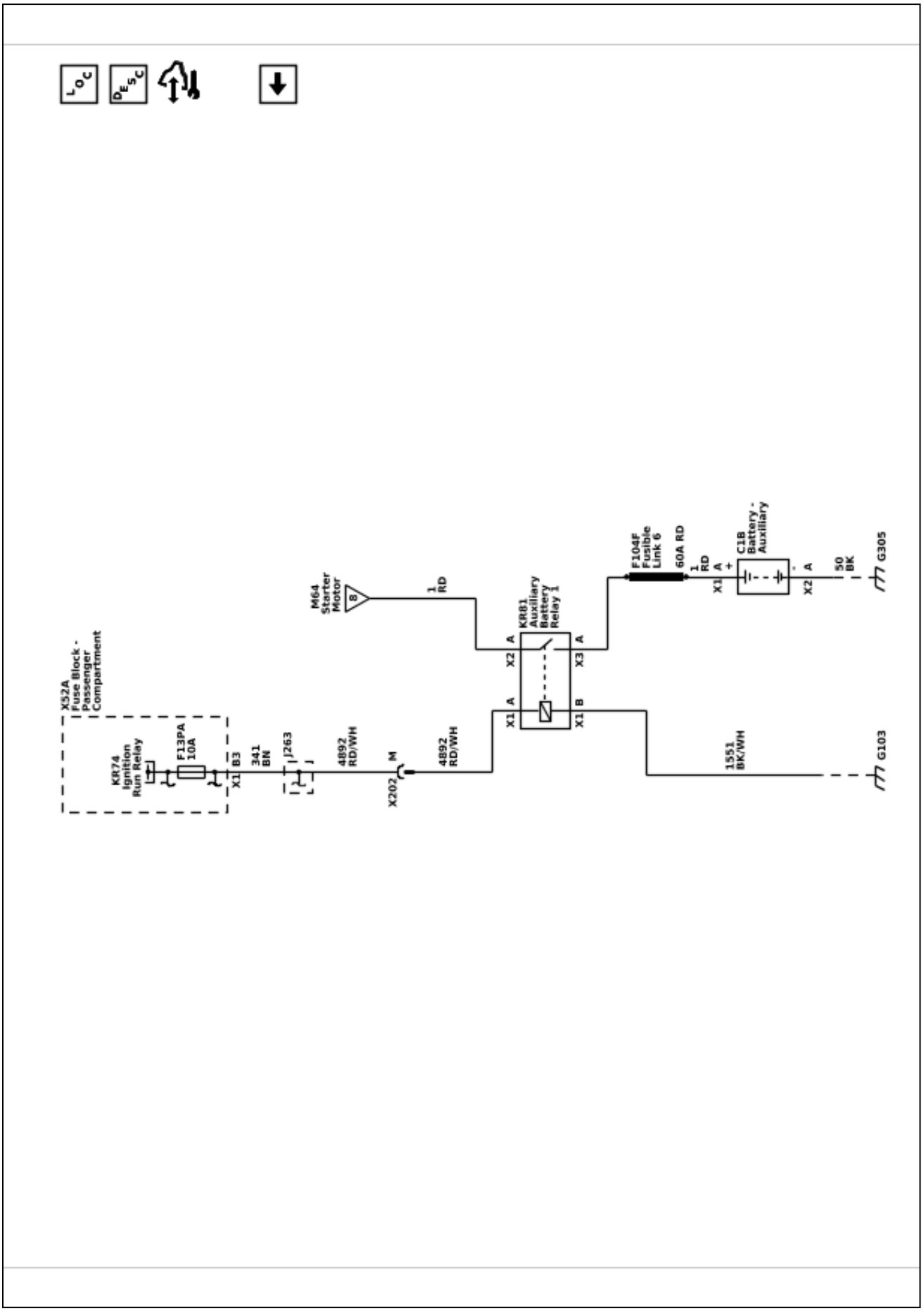
Starting and Charging Schematics (Starting System - Two Batteries)



Starting and Charging Schematics (Charging System - Two Batteries)



Starting and Charging Schematics (Auxiliary Battery Relay and Auxiliary Battery - Two Batteries)



Description and Operation

Electrical Power Management Description and Operation (Gasoline)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Electrical Power Management Description and Operation (Diesel)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition. Idle boost consists of three steps: idle boost 1, idle boost 2, and idle boost 3 (approximately 725, 850, and 850 rpm respectively). Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Ignition Switch

Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the brake pedal is applied and for manual transmission the clutch is fully depressed or for automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Section 4

HVAC

HVAC - Manual **4-2**
Schematic and Routing Diagrams **4-2**
HVAC Vacuum Schematics 4-2
Description and Operation **4-3**
Air Delivery Description and Operation 4-3
Air Temperature Description and Operation 4-5

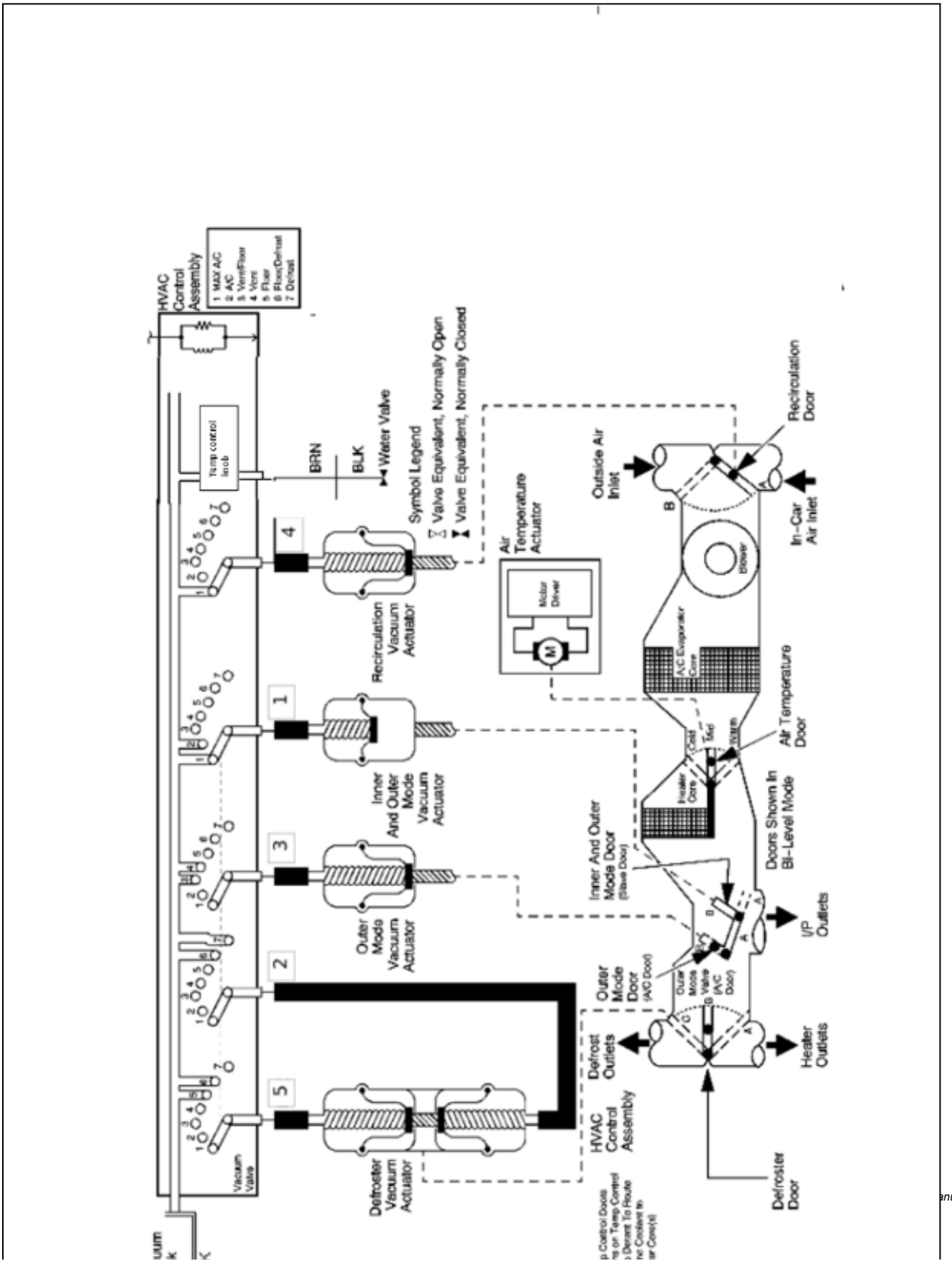
HVAC

HVAC - Manual

Schematic and Routing Diagrams

HVAC Vacuum Schematics

HVAC Vacuum Schematics (HVAC Vacuum Schematics)



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Heater Only

Vacuum Valve Switch Operating Chart							
Vacuum Hose Connector	**Port Number**	**Off**	**Vent**	**Bi- Level**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vent	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vent	Vent	Vent
Recirculation	4	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vacuum	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

Heater and Air Conditioning

Vacuum Valve Switch Operating Chart									
Vacuum Hose Connector	**Port Number**	**Off**	**MAX**	**Normal**	**Bi- Level**	**Vent**	**Heat**	**Blend**	**Defrost**
A/C Open	1	Vent	Vacuum	Vacuum	Vent	Vacuum	Vent	Vent	Vent
Defrost	2	Vent	Vent	Vent	Vent	Vent	Vent	Vent	Vacuum
Bi- Level	3	Vent	Vacuum	Vacuum	Vacuum	Vacuum	Vent	Vent	Vent
Recirculation	4	Vent	Vacuum	Vent	Vent	Vent	Vent	Vent	Vent
Heater	5	Vacuum	Vent	Vent	Vacuum	Vent	Vacuum	Vent	Vent
Vacuum Source	6	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum

Description and Operation

Air Delivery Description and Operation

The air delivery description and operation is divided into the following:

- HVAC Control Assembly
- Air Speed
- Auxiliary Air Speed
- Air Distribution
- Auxiliary Air Delivery

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuit provides power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the position of the mode doors.

Air Speed

The HVAC control assembly applies voltage to the blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-3 resistors
- Medium 1 speed-2 resistors
- Medium 2 speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Auxiliary Air Speed

The auxiliary HVAC control assembly applies voltage to the auxiliary blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-2 resistors
- Medium speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the auxiliary high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Air Distribution

The HVAC control assembly uses vacuum to control the mode door position. Vacuum is supplied to the control assembly and a vacuum tank by either an engine vacuum source, or a vacuum pump when the vehicle is equipped with a diesel engine..

Vacuum Pump (Diesel Engines)
The mechanical vacuum pump operates when the engine is running. The vacuum pump supplies vacuum to the HVAC control assembly and vacuum tank.

Mode Switch
The mode switch is a rotary vacuum valve that directly applies vacuum to the appropriate vacuum actuator. Use the mode switch to change the air delivery mode in the vehicle.

MAX A/C (If Equipped)
The mode switch applies vacuum to ports 1, 3, and 4. The mode actuators have vacuum applied to them, directing airflow to the vents. The recirculation actuator has vacuum applied to it positioning the recirculation door to recirculate air within the vehicle. A/C compressor operation is requested.

A/C (If Equipped)
The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents. A/C compressor operation is requested.

Bi-Level Mode
The mode switch applies vacuum to ports 3 and 5. The inner mode and defrost actuators have vacuum applied to them, directing airflow to the vents and floor.

Vent Mode
The mode switch applies vacuum to ports 1 and 3. The mode actuators have vacuum applied to them, directing airflow to the vents.

Floor Mode
The mode switch applies vacuum to port 5. The defrost actuator has vacuum applied to it, directing airflow to the floor.

Mix-Blend Mode
The mode switch vents all ports. With no vacuum at any port, the following occurs:

- Vacuum is bled off the defrost actuator, keeping it in a neutral position. The defroster door is held stationary in the half-open directing airflow through the defroster and floor outlets.
- A/C compressor operation is requested.

Defrost Mode
The mode switch applies vacuum to port 7 and the following occurs:

- The defrost actuator has vacuum applied to it directing airflow through the defroster outlet.
- A/C compressor operation is requested.

Auxiliary Air Distribution (C69)

Auxiliary HVAC Control Processor
The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications. If the auxiliary HVAC control processor receives a 12V varied voltage input for an auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12V varied output for control of the auxiliary air temperature actuator.

Auxiliary Mode Actuator
The auxiliary mode actuator is a 3 wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0-12V linear-ramped signal to command the actuator movement. The 0 and 12V control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12V correspond to the positions between the limits. When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0-12V. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

The rear auxiliary air delivery and the temperature controls work independently of the ventilation controls used for the front of the vehicle. The rear auxiliary mode door and the rear auxiliary temperature door are exclusively controlled from either of the 2 auxiliary HVAC controls. The front auxiliary HVAC controls has a permissive position called REAR. The REAR position enables control from the rear auxiliary HVAC controls.

Air Temperature Description and Operation

The air temperature controls are divided into five areas.

- HVAC Control Components
- Heating and A/C Operation
- Auxiliary Heating and A/C Operation
- Engine Coolant
- A/C Cycle

HVAC CONTROL COMPONENTS

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuits provide power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the mode door position.

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications.

If the auxiliary HVAC control processor receives a 12-volt varied voltage input for an auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12-volt varied output for control of the auxiliary air temperature actuator.

Air Temperature Actuator

The air temperature actuator and auxiliary air temperature actuator are a 3-wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0–12-volt linear-ramped signal to command the actuator movement. The 0 and 12-volt control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12 volts correspond to the positions between the limits.

When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0–12 volts. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

A/C Pressure Switches

The A/C system is protected by two A/C pressure switches.

- A/C low pressure switch
- A/C high pressure switch

The A/C high pressure switch interrupts the A/C request signal when the A/C line pressure is more than a predetermined value. The A/C low pressure switch interrupts the A/C low pressure switch signal when the A/C line pressure is less than or more than a predetermined value. When the powertrain control module (PCM) stops receiving the required signals, the A/C compressor clutch relay control circuit is no longer grounded, disengaging the A/C compressor clutch. The A/C compressor clutch is disengaged under the following conditions:

- A/C low pressure switch is less than 152 kPa (22 psi).
- A/C low pressure switch is more than 310 kPa (45 psi).
- A/C high pressure switch is more than 2896 kPa (420 psi).

Bypass Valves

The bypass valves included in the air temperature system are:

- Coolant Bypass Valve
- Hot Water Bypass Valve

The bypass valve is a normally open valve, which closes when vacuum is applied to the valve. When the MAX A/C mode is selected, vacuum from the HVAC control assembly is applied to the bypass valve. The vacuum must be strong enough to overcome the tension of the valve's internal return spring in order to close the bypass valve. The return spring forces the valve to return to the open position, when any of the other HVAC modes are selected. In the closed position, the flow of coolant to the heater core is bypassed, allowing maximum cooling to the passenger compartment.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. The vehicle operator can determine the passenger compartment temperature by adjusting the air temperature switch.

Regardless of the temperature setting, the following can effect the rate that the HVAC system can achieve the desired temperature:

- Recirculation
- Difference between inside and desired temperature
- Difference between ambient and desired temperature
- Blower motor speed setting
- Mode setting
- Auxiliary HVAC settings

The A/C system can be engaged by placing the mode switch in one of the following positions:

- Max A/C
- A/C
- Bi-Level
- Blend
- Defrost

The A/C system can operate regardless of the temperature setting. Regardless of the selected A/C mode setting, a request is sent to the PCM to turn on the A/C compressor clutch.

The following conditions must be met in order for the PCM to turn on the compressor clutch:

- Ambient air temperature is greater than 3°C (38°F)
- Engine coolant temperature (ECT) is less than 123°C (253°F)
- Engine speed is less than 5000 RPM
- The A/C compressor cycling switch pressure is between 124-388 kPa (18-49 psi)
- The A/C high pressure cutout switch is less than 2896 kPa (420 psi)

Once engaged, the compressor clutch will be disengaged for the following conditions:

- Throttle position is 100 percent
- The A/C compressor cycling switch pressure is less than 124 kPa (18 psi) or more than 338 kPa (49 psi)
- The A/C high pressure cutout switch is more than 2896 kPa (420 psi)
- Engine coolant temperature (ECT) is more than 123°C (253°F)
- Engine speed is more than 5000 RPM
- Transmission shift
- PCM detects excessive torque load
- PCM detects insufficient idle quality
- PCM detects a hard launch condition

When the compressor clutch disengages, the compressor clutch diode protects the electrical system from a voltage spike.

Heater Mode – Auxiliary Heater without A/C
The auxiliary blower motor recycles air from the vehicle's interior. The vehicle operator can determine the intensity of the auxiliary heater by placing the auxiliary blower motor in one of the following positions:

- Low
- Med
- High

Since there is no temperature switch, the temperature is controlled by the speed of the auxiliary blower motor. The auxiliary blower motor will only operate when the ignition is in the RUN position, and the auxiliary blower motor switch is in any position other than OFF.

Heater Mode – Front Auxiliary HVAC Control Assembly Only
The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the instrument panel (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Heater Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly
The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature

Heater Mode – Rear Auxiliary HVAC Control Assembly
The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly Only
The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly
The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Rear Auxiliary HVAC Control Assembly
The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Engine Coolant
Engine coolant is the key element of the heating system. The thermostat controls engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation. Coolant enters the heater core through the inlet heater hose, in a pressurized state.

The heater core is located inside the HVAC module. The heat of the coolant flowing through the heater core is absorbed by the ambient air drawn through the HVAC module. Heated air is distributed to the passenger compartment, through the HVAC module, for passenger comfort.

The amount of heat delivered to the passenger compartment is controlled by opening or closing the HVAC module air temperature door. The coolant exits the heater core through the return heater hose and recirculated back through the engine cooling system.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the orifice tube.

The orifice tube is located in the liquid line between the condenser and the evaporator. The orifice tube is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the orifice tube, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to vaporize at the orifice tube. The orifice tube also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the orifice tube flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state, and completing the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

A/C Cycle with Auxiliary

The auxiliary A/C system operates from the vehicles primary A/C system. The front or primary A/C system must be ON to allow the rear A/C system to function.

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C system used on this vehicle is a non cycling system. Non cycling A/C systems use a high pressure switch to protect the A/C system from excessive pressure. The high pressure switch will OPEN the electrical signal, to the compressor clutch, in the event that the refrigerant pressure becomes excessive. After the high and low side of the A/C system pressure equalize, the high pressure switch will CLOSE. Closing the high pressure switch will complete the electrical circuit to the compressor clutch. The A/C system is also mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line. The liquid line flow is split and the liquid refrigerant flows to both the front or primary A/C system, and to the liquid line for the rear A/C system.

The liquid refrigerant, flowing to the rear A/C system, flows into the rear TXV. The rear TXV is located at the rear evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the rear A/C system. As the refrigerant passes through the TXV, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the expansion device. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the rear A/C module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the primary A/C systems suction line. Refrigerant in the primary A/C system suction line flows back to the compressor, in a vapor state, and completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the rear A/C module for passenger comfort. The heat and moisture removed from the rear passenger compartment will also change form, or condense, and is discharged from the rear A/C module as water.

Section 5

Power and Signal Distribution

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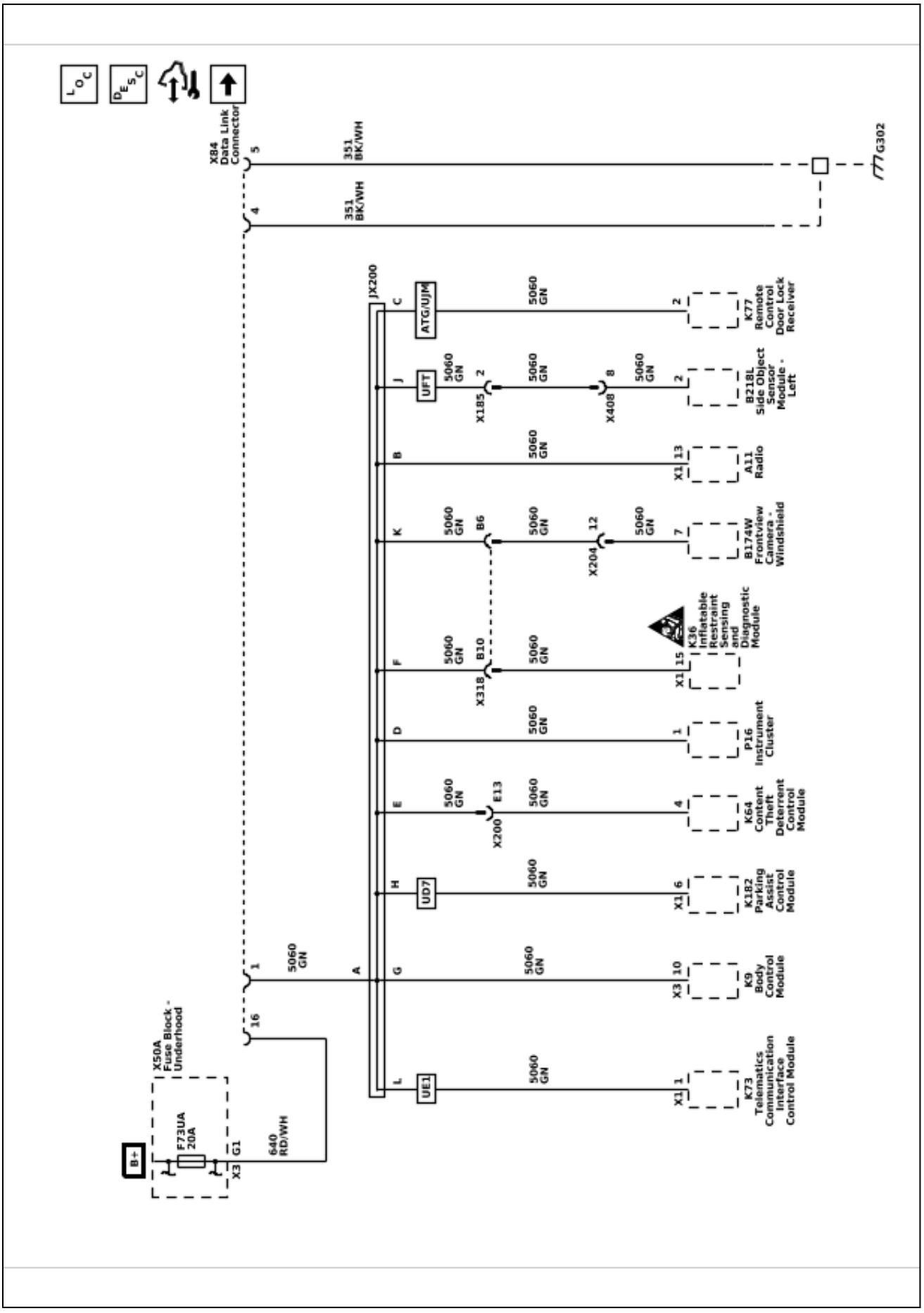
Power and Signal Distribution

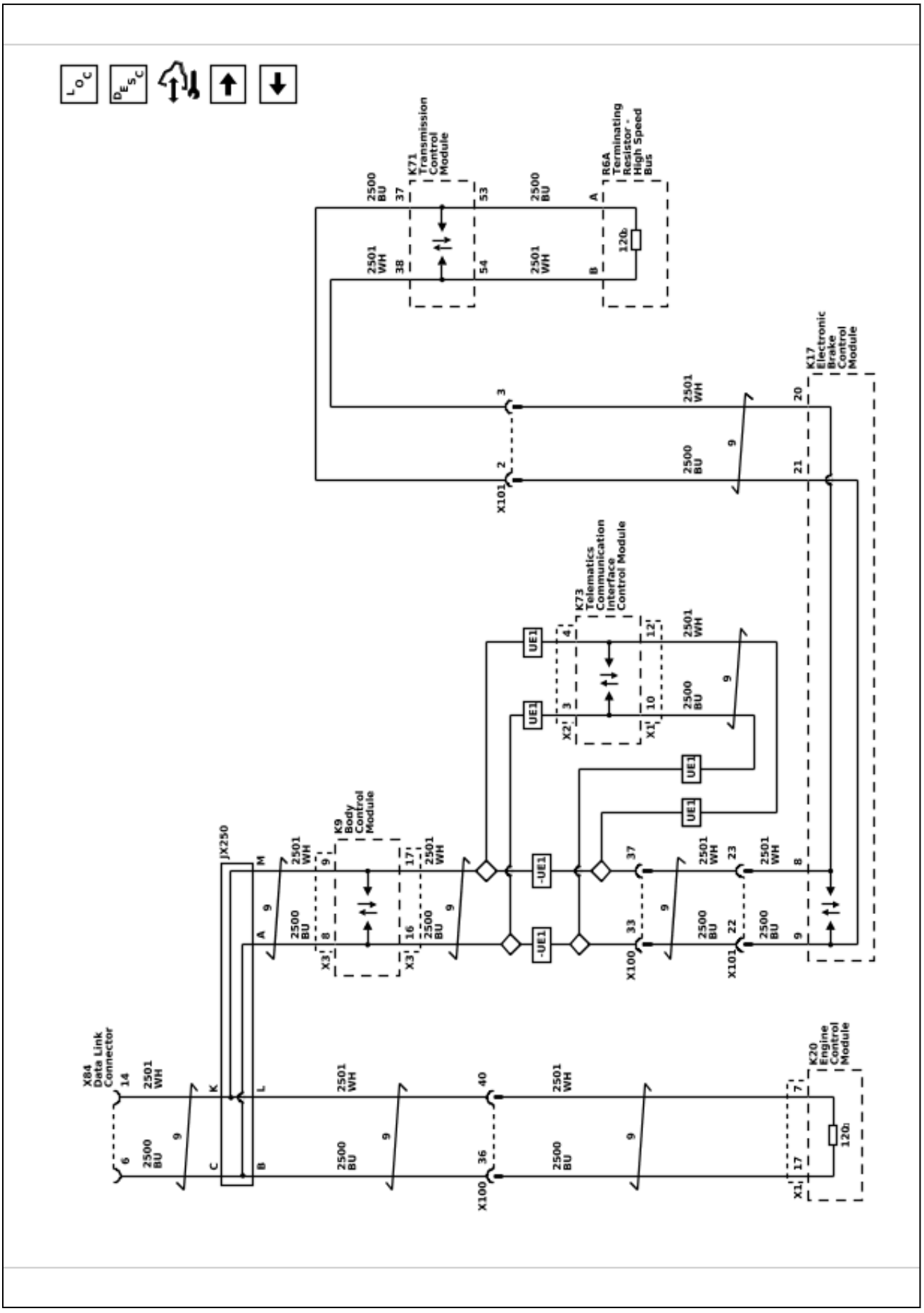
Data Communications

Schematic and Routing Diagrams

Data Communication Schematics (Low Speed GMLAN)



Data Communication Schematics (High Speed GMLAN)



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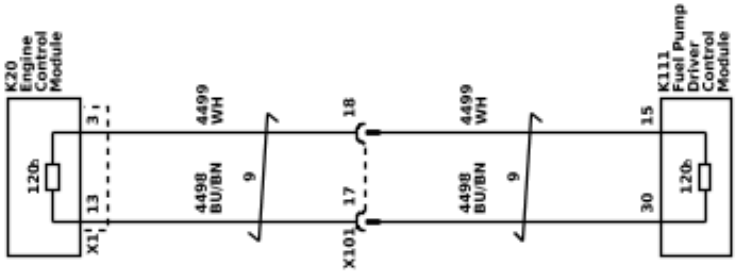
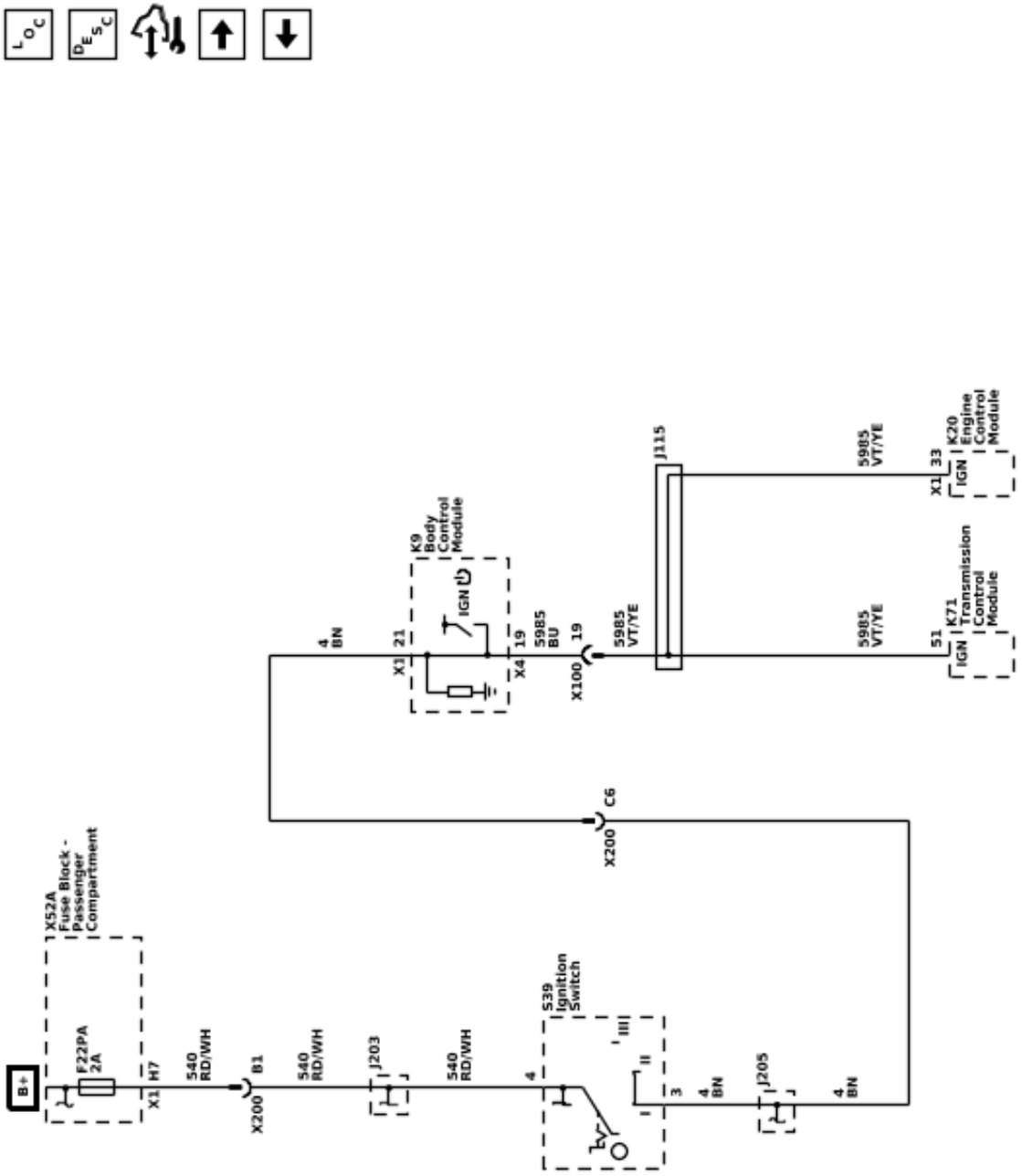
Data Communication Schematics (Powertrain High Speed GMLAN)



Data Communication Schematics (Accessory Wakeup)



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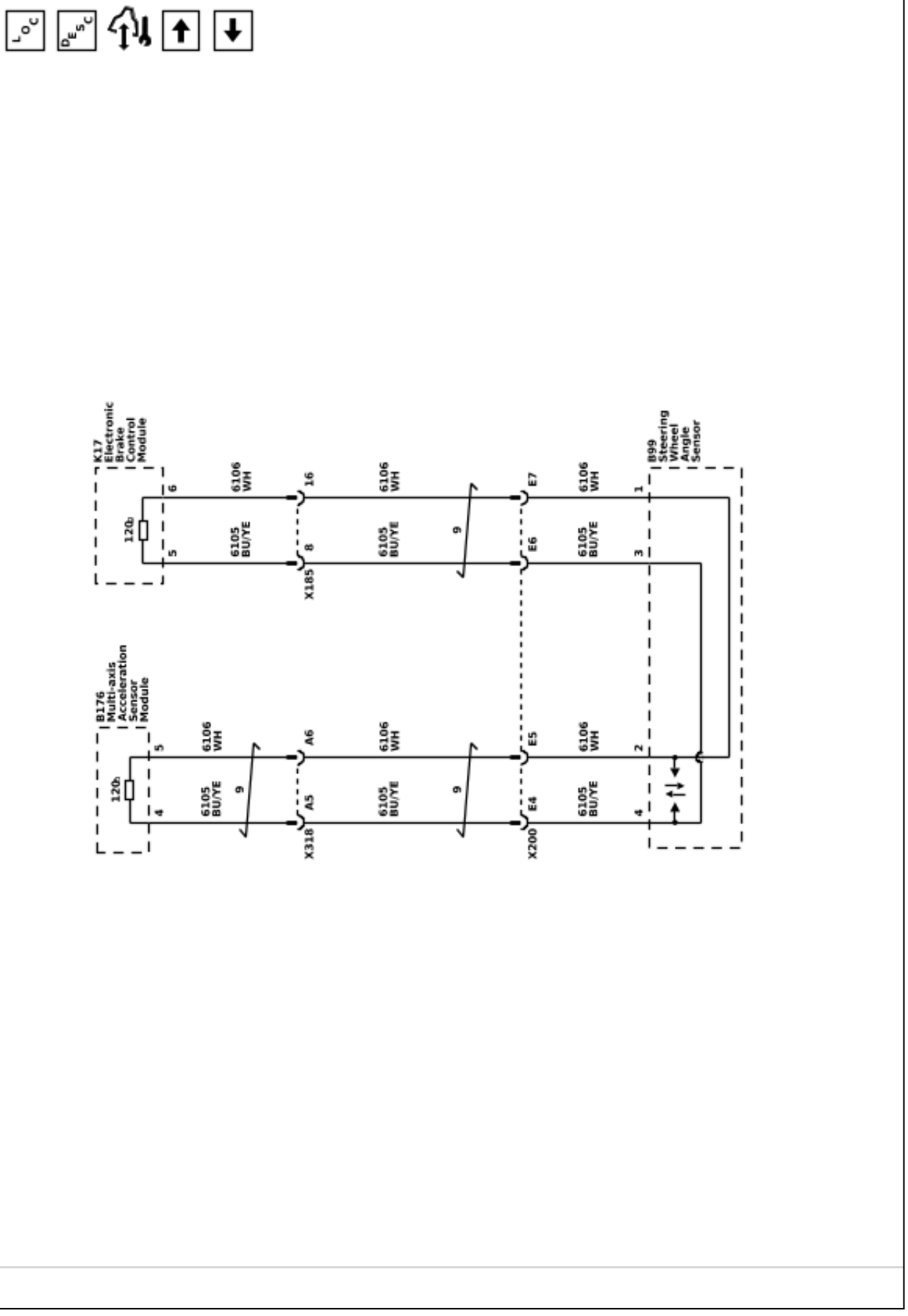
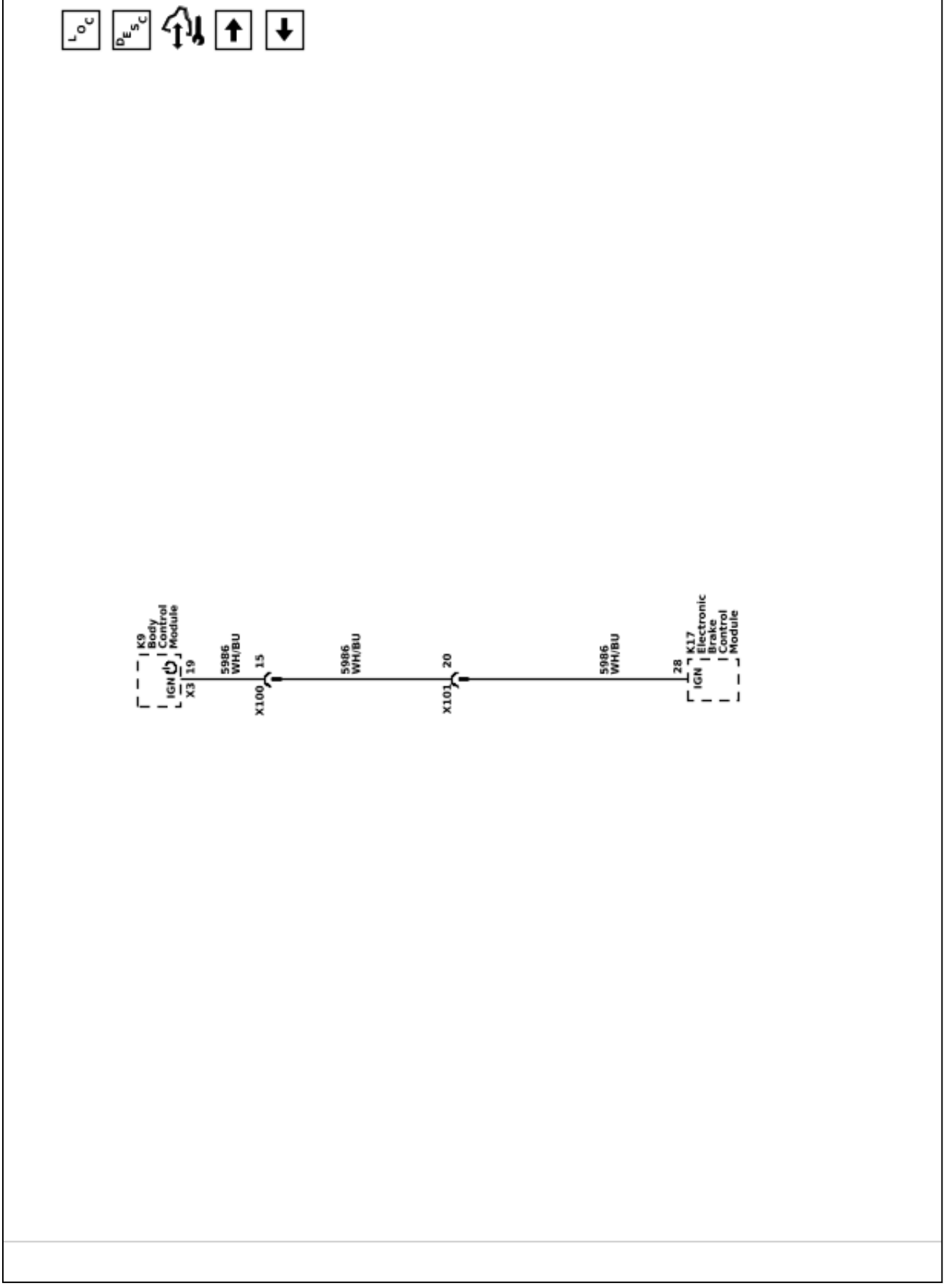
Data Communication Schematics (Chassis High Speed GMLAN)

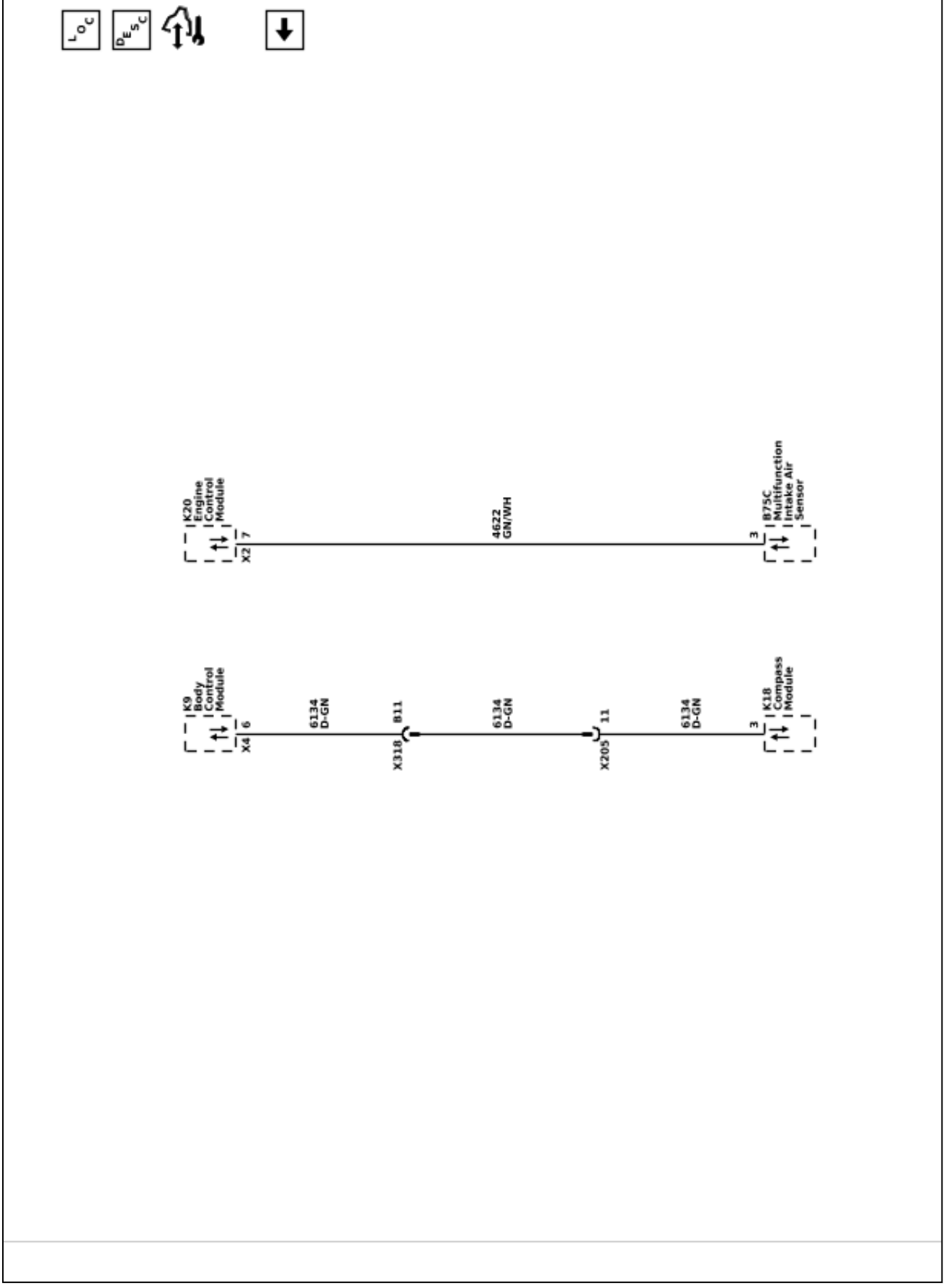


Data Communication Schematics (Communications Enable)

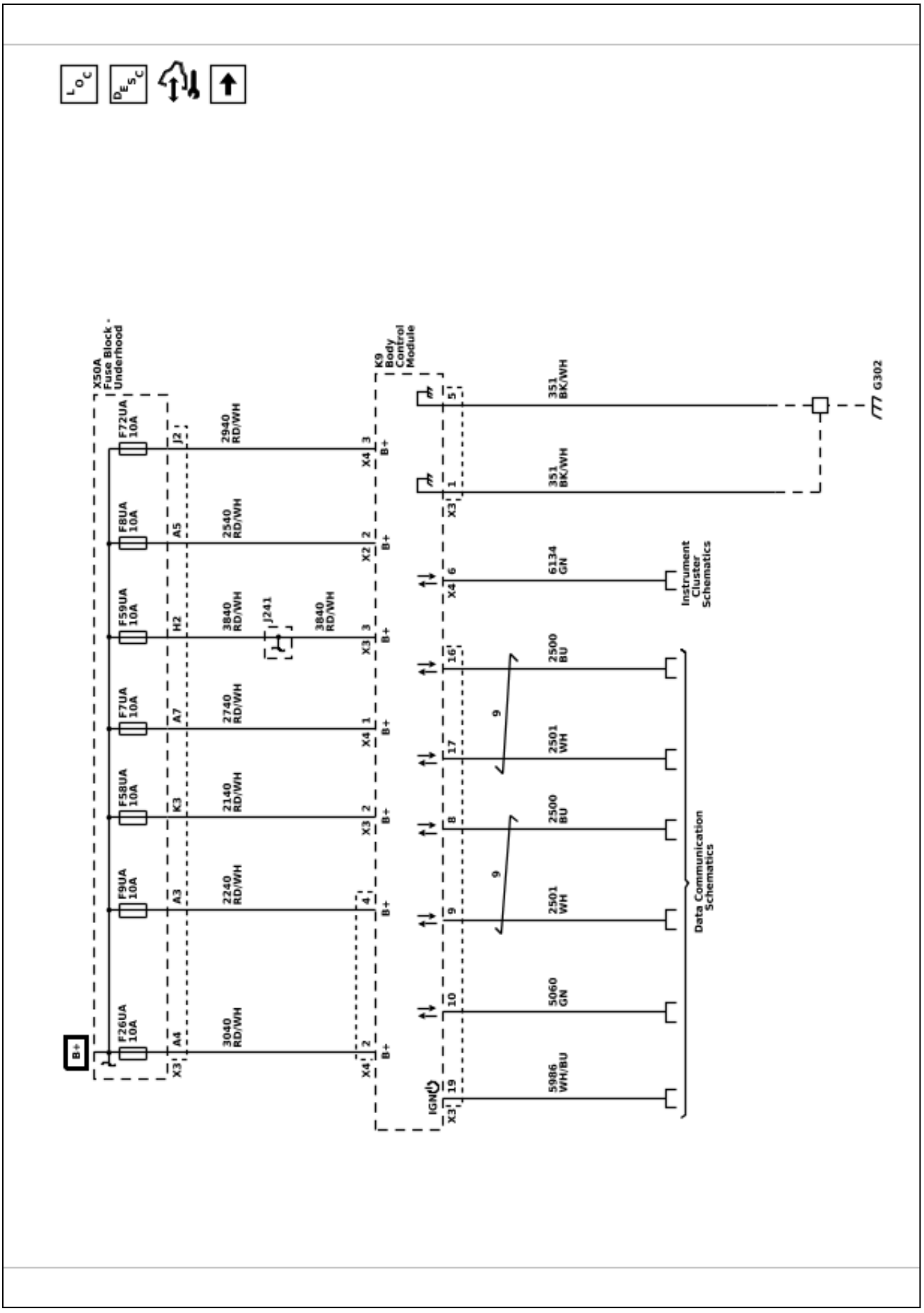


Data Communication Schematics (Local Interconnect Network)

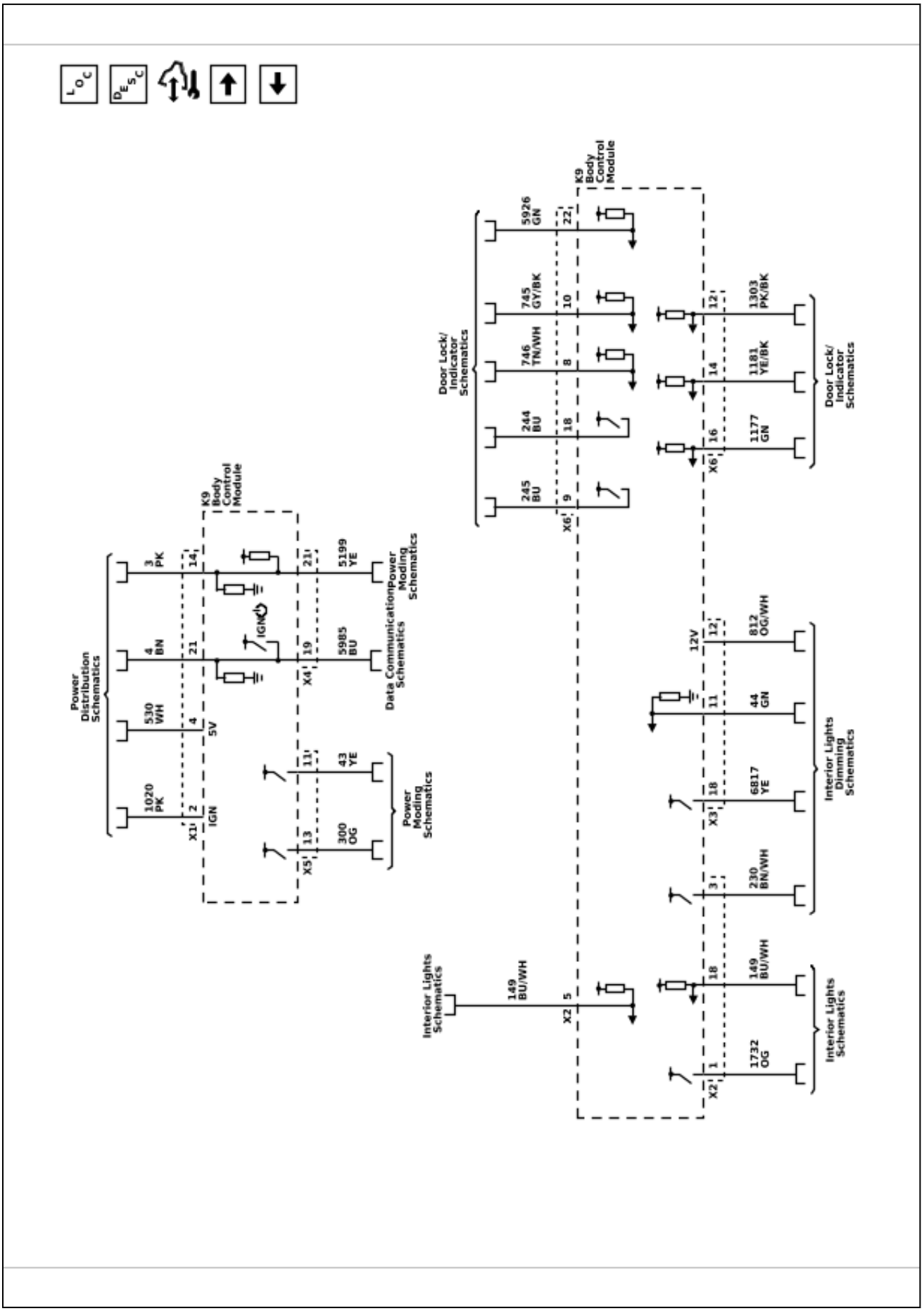
6600192



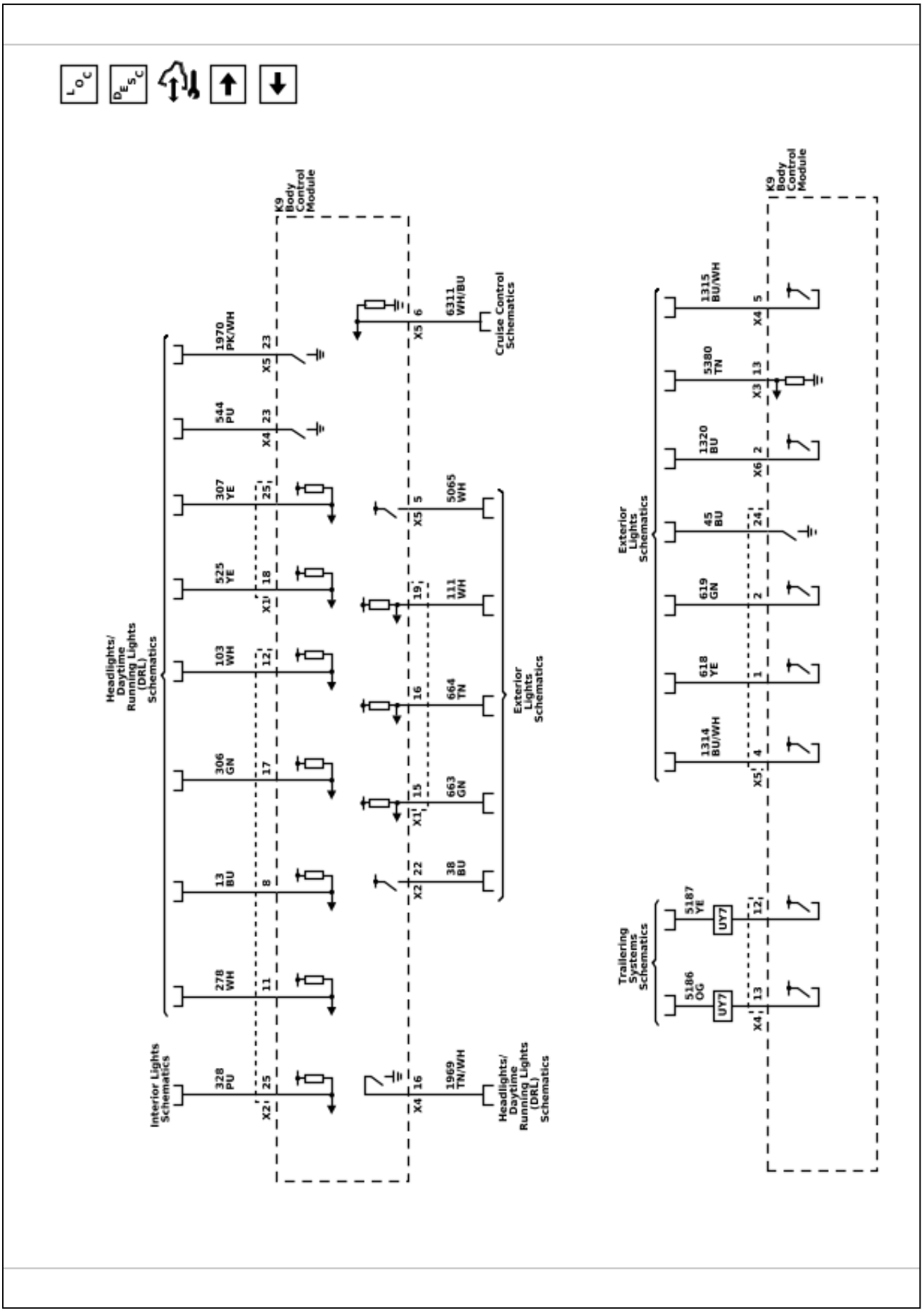
Body Control System Schematics (BCM Power, Ground and Serial Data)



Body Control System Schematics (BCM Inputs and Outputs - 1 of 3)



Body Control System Schematics (BCM Inputs and Outputs - 2 of 3)



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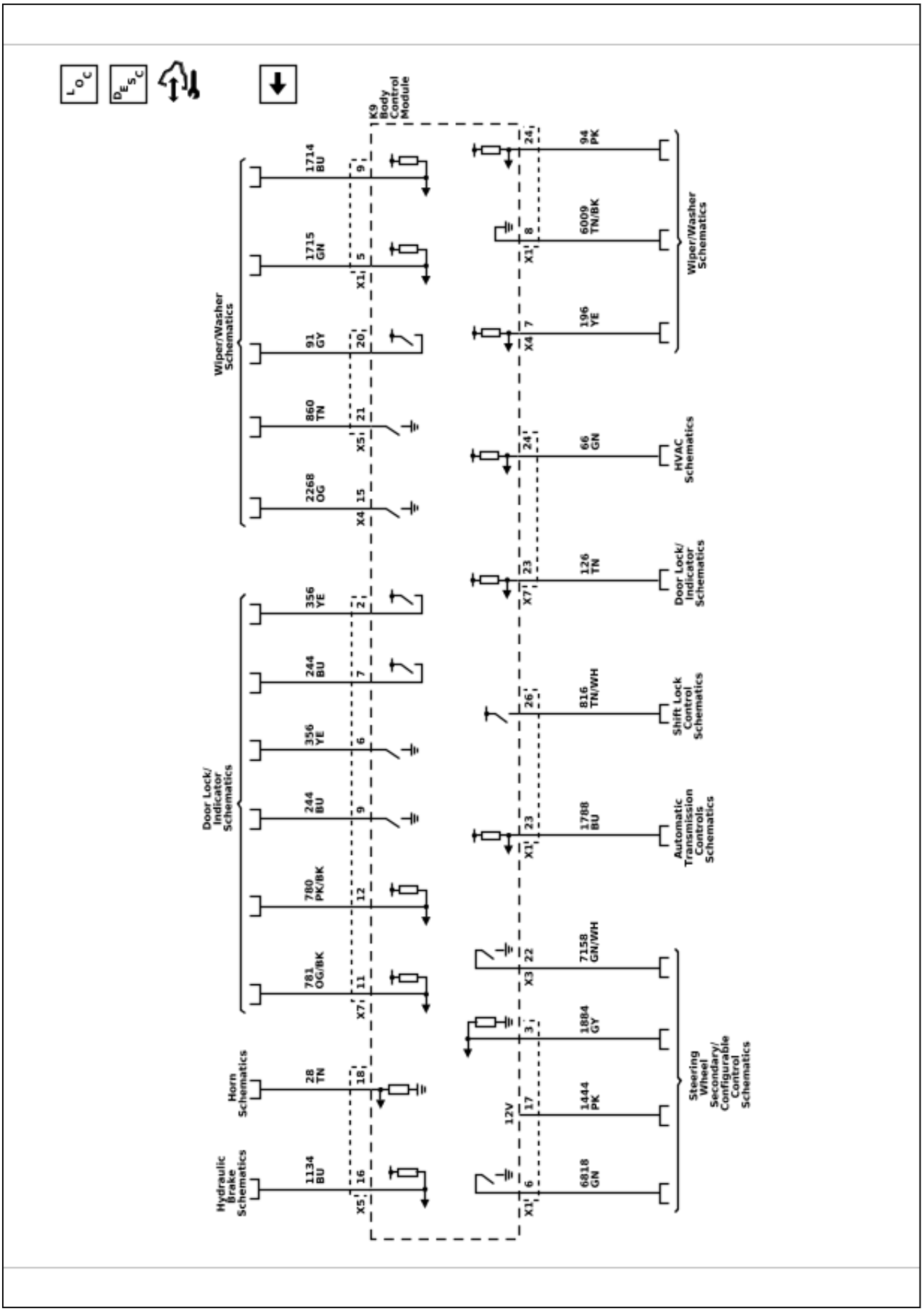
Body Control System Schematics (BCM Inputs and Outputs - 3 of 3)



Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the GMLAN High speed serial data bus and the GMLAN Low speed serial data bus and acts as a gateway between them. If the BCM does not communicate the vehicle will not start due to the inability of the Engine/ Powertrain Control Module (ECM/PCM) and Vehicle Theft Deterrent (VTD) Control Module to communicate without the BCM providing the gateway function.

Power Mode Master

This vehicles BCM functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination the power mode that will be sent over the serial data circuits to the other modules that need this information, and so the PMM will activate relays and other direct outputs of the PMM as needed. Refer to *Power Mode Description and Operation 5-542* for a complete description of power mode functions.

Serial Data Gateway

The BCM in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

One example of this necessary communication is the communication between the Engine/Powertrain Control Module (ECM/PCM) which is high speed serial data and Vehicle Theft Deterrent (VTD) Control Module which is low speed serial data. If these modules can not exchange information, the vehicle will not start.

Communication between the BCM and a scan tool can be on the high speed GMLAN network or low speed GMLAN network. If one network is lost, the BCM can still communicate with the scan tool. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control Module

The various body control module (BCM) input and output circuits are described in the corresponding functional areas indicated on the BCM electrical schematics. Some BCM functions with the subsystems may be as a gateway only or as an enable for the system. The BCM related systems/subsystems include, but are not limited to the following:

- Antilock brake system (ABS)—Refer to **ABS Description and Operation**.
- Cruise control system—Refer to **Cruise Control Description and OperationCruise Control Description and Operation**.
- Exterior lighting—Refer to *Exterior Lighting Systems Description and Operation 1-23*.
- Horn system —Refer to *Horns System Description and Operation 1-8*.
- Instrument cluster indicator control—Refer to *Instrument Cluster Description and Operation 2-30*.
- Interior lighting—Refer to *Interior Lighting Systems Description and Operation 1-25*.
- Power door lock system —Refer to *Power Door Locks Description and Operation 1-41*.
- Rear window defogger system —Refer to *Rear Window Defogger Description and Operation 1-5*.
- Remote function actuation (RFA) control—Refer to *Keyless Entry System Description and Operation 6-8*.
- Retained accessory power (RAP)—Refer to *Retained Accessory Power Description and Operation 5-543*.
- Shift lock control system —Refer to *Automatic Transmission Shift Lock Control Description and Operation 7-4*.
- Starting system—Refer to *Starting System Description and Operation 3-10*.
- Supplemental inflatable restraint (SIR) system —Refer to *Supplemental Inflatable Restraint System Description and Operation 6-19*.
- Theft deterrent—Refer to *Immobilizer Description and Operation 6-4*.
- Wiper/Washer system functions—Refer to *Wiper/ Washer System Description and Operation (Wiper and Washers) 1-46*.

Data Link Communications Description and Operation

Circuit Description

The communication among control modules is performed primarily through the GMLAN high speed serial data circuit and the GMLAN low speed serial data circuits. The modules that need real time communication are attached to the high speed GMLAN network. The body control module (BCM) is the serial data gateway between the networks. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus. The Local Interconnect Network (LIN) is another serial data communication network used on this vehicle which is dedicated to the remote compass module (RCM) subsystem. Below are more detailed descriptions of the individual networks. The gateway will interact with each network according to that network's transmission protocol. Refer to *Body Control System Description and Operation 5-14* for more information about the gateway.

GMLAN High Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the high speed GMLAN serial data circuit. The serial data is transmitted on two twisted wires that allow speed up to 500 Kb/s. The twisted pair is terminated with two 120 ohms resistors. The resistors are used to reduce noise on the High Speed GMLAN bus during normal vehicle operation. The high speed GMLAN is a differential bus. The high speed GMLAN serial data (+) and high speed GMLAN serial data (−) are driven to opposite extremes from a rest or idle level. The idle level, which is approximately 2.5 volts, is considered recessive transmitted data and is interpreted as a logic 1. Driving the lines to their extremes, adds one volt to the high speed GMLAN serial data (+) and subtracts one volt from the high speed GMLAN serial data (−) wire. This dominant state is interpreted as a logic 0. GMLAN network management supports selective start up and is based on virtual networks. A virtual network is a collection of signals started in response to a vehicle event. The starting of a virtual network signifies that a particular aspect of the vehicles functionality has been requested. A virtual network is supported by virtual devices, which represents a collection of signals owned by a single physical device. So, any physical device can have one or more virtual devices. The signal supervision is the process of determining whether an expected signal is being received or not. Failsofting is the ability to substitute a signal with a default value or a default algorithm, in the absence of a valid signal. Some messages are also interpreted as a heartbeat of a virtual device. If such a signal is lost, the application will set a no communication code against the respective virtual device. This code is displayed on the Tech 2 screen as a code against the physical device. Note: a loss of serial data DTC does not represent a failure of the module that the code is set in.

GMLAN Low Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the low speed GMLAN serial data circuit. The serial data is transmitted over a single wire to the appropriate control modules. The transmission speed for GMLAN low speed is up to 83.33 Kb/s. Under normal vehicle operating conditions, the speed of the bus is 33.33 Kb/s. This protocol produces a simple pulse train sent out over the GMLAN low speed serial data bus. When a module pulls the bus high, 5 volts, this creates a dominant logic state or 0 on the bus. When the bus is pulled low, 0 volts, it is translated as a recessive logic state or 1. To wake the control modules connected to the GMLAN low speed serial data bus, a high voltage wake up pulse is sent out over the bus, the voltage level of the pules is +10 volts. Modules connected to the GMLAN low speed bus can be part of a virtual network as described in the previous paragraph. Most modules on the GMLAN low speed serial data bus are connected to the bus in a parallel configuration. Refer to the schematics to determine modules that are not in parallel

Local Interconnect Network (LIN) Description

The remote compass module (RCM) communicates with the BCM utilizing a single wire LIN communication link. The BCM is the gateway for the GMLAN network. All data is communicated on the LIN bus, therefore there are only 3 circuits to the RCM as follows:

- Ground
- LIN bus
- Voltage

Data Link Connector (DLC)

The data link connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and provides the following:

- Pin 1 GMLAN low speed communications terminal
- Pin 4 Scan tool power ground terminal
- Pin 5 Common signal ground terminal
- Pin 6 High speed GMLAN serial data bus (+) terminal
- Pin 14 High speed GMLAN serial data bus (−) terminal
- Pin 16 Scan tool power, battery positive voltage terminal

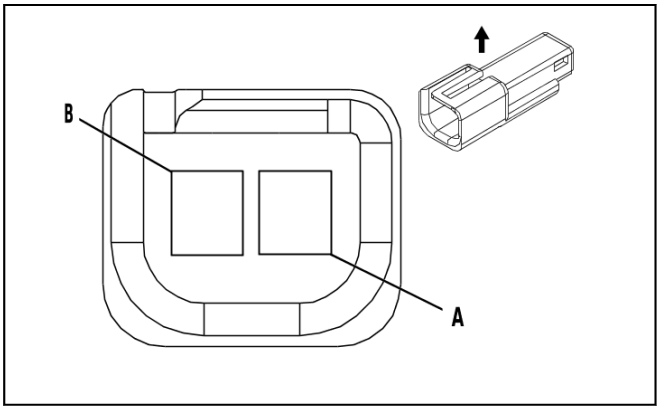
Serial Data Reference

The scan tool communicates over the various busses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every module that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm for that options specific control module. In order to avert misdiagnoses of No Communication with a specific module, refer to **Data Link References** for a list of modules, the bus they communicate with, and the RPO codes for a specific module.

Electrical Component and Inline Harness Connector End Views

Component Locator

A3L Sunshade - Left (DH6)



35441

Connector Part Information

- Harness Type: Headliner
- OEM Connector: 12047663
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 150 Metri-Pack Series(BK)

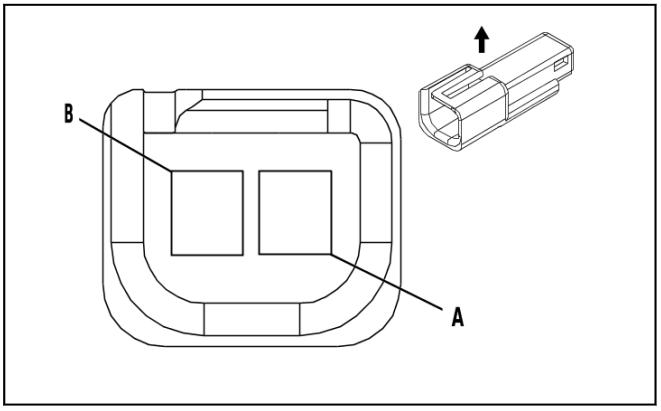
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

A3L Sunshade - Left (DH6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	OG	1732	Control Module 12V Reference 3	I	—
B	—	BK	1850	Ground	I	—

A3R Sunshade - Right (DH6)



35441

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12047663
- Service Connector: 13584278
- Description: 2-Way M 150 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

A3R Sunshade - Right (DH6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Control Module 12V Reference 3	I	—
B	0.5	BK	1850	Ground	I	—

A7 Fuel Pump and Level Sensor Assembly

—

Connector Part Information
- Harness Type: Fuel Tank Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F

Terminal Part Information

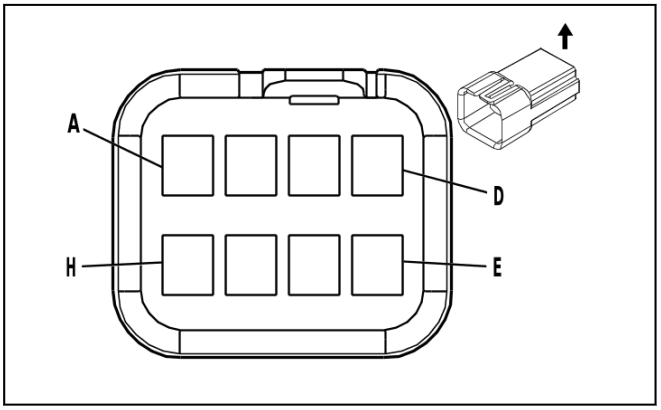
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A7 Fuel Pump and Level Sensor Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) GY	(1) 120	(1) Fuel Pump Control	(1) I	(1) —
(2) 2	(2) —	(2) YE / GY	(2) 4137	(2) Fuel Pump Supply Voltage Phase 2	(2) I	(2) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(3) 3	(3) —	(3) WH / BN	(3) 4138	(3) Fuel Pump Supply Voltage Phase 3	(3) I	(3) —
(4) 4	(4) —	(4) BK / GN	(4) 6281	(4) Fuel Level Sensor Low Reference	(4) I	(4) —
(5) 5	(5) —	(5) BU / VT	(5) 1589	(5) Primary Fuel Level Sensor Signal	(5) I	(5) —

A9A Outside Rearview Mirror - Driver



62434

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 12065396
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way M 150 Metri-Pack Series(NA)

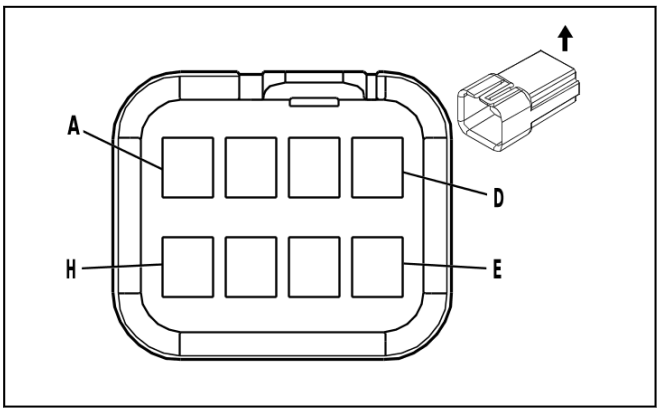
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

A9A Outside Rearview Mirror - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	450	Ground	I	—
B	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	450	Ground	I	—
E	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—
F	0.35	GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

A9B Outside Rearview Mirror - Passenger



62434

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 12162427
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way M 150 Metri-Pack Series(NA)

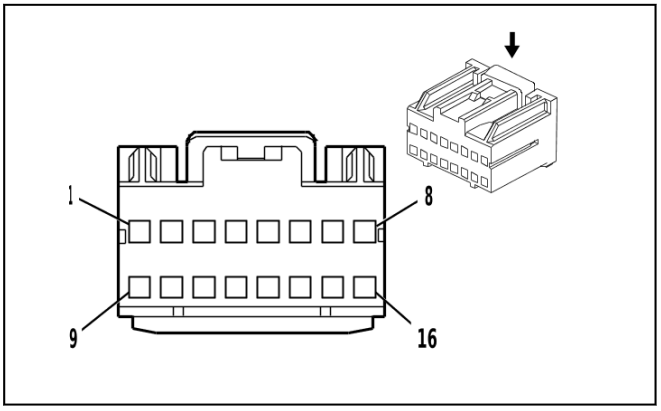
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

A9B Outside Rearview Mirror - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1850	Ground	I	—
B	0.5	BU / WH	1315	Right Front Turn Signal Lamp Control	I	—
C	0.8	OG	2267	Outside Rearview Mirror Heater Control	I	—
D	0.5	BK	1850	Ground	I	—
E	0.35	BN / WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
F	0.35	PU / WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
G	0.35	OG / WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
H	0.35	BN / WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—

A10 Inside Rearview Mirror (- (UEU / UFL))



1711009

Connector Part Information

- Harness Type: Roof Console Wiring Harness
- OEM Connector: 13912218
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way F 100A Micro Series(BK)

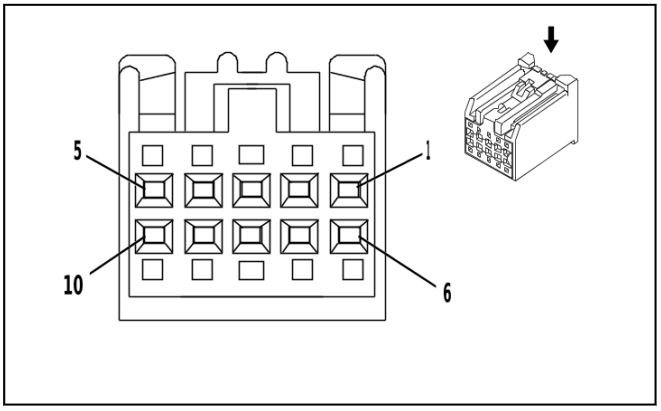
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575548	J-35616-16 (L-GN)	J-38125-559

A10 Inside Rearview Mirror (- (UEU / UFL))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
(6) 6	(6) 0.5	(6) BU / YE	(6) 7641	(6) Frontview Camera 2 Signal [+]	(6) I	(6) —
(7) 7	(7) 0.5	(7) WH / YE	(7) 7642	(7) Frontview Camera 2 Signal [-]	(7) I	(7) —
(8) 8	(8) 0.5	(8) BK / WH	(8) 351	(8) Signal Ground	(8) I	(8) —
(9) 9	(9) 0.5	(9) GN / WH	(9) 24	(9) Backup Lamp Control	(9) I	(9) —
10 - 12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.5	(13) VT / WH	(13) 239	(13) Run/Crank Ignition 1 Voltage	(13) I	(13) —
14 - 16	—	—	—	Not Occupied	—	—

A10 Inside Rearview Mirror (UEU / UFL)



2180211

Connector Part Information

- Harness Type: Roof Console Wiring Harness
- OEM Connector: AIT2PB-10P-2AK
- Service Connector: 13577390
- Description: 10-Way F 0.64 Kaizen Series(BK)

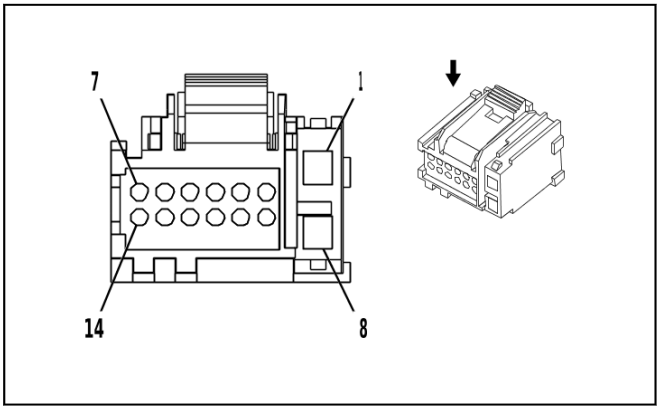
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

A10 Inside Rearview Mirror (UEU / UFL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / WH	(1) 24	(1) Backup Lamp Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) PK	(2) 239	(2) Run/Crank Ignition 1 Voltage	(2) I	(2) —
3 - 4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.5	(5) BK / WH	(5) 351	(5) Signal Ground	(5) I	(5) —
(6) 6	(6) 0.5	(6) BU	(6) 7641	(6) Frontview Camera 2 Signal [+]	(6) I	(6) —
(7) 7	(7) 0.5	(7) WH	(7) 7642	(7) Frontview Camera 2 Signal [-]	(7) I	(7) —
8 - 10	—	—	—	Not Occupied	—	—

A11 Radio X1



2684742

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 13545675
- Service Connector: 13580448
- Description: 14-Way F 0.64 Micro-Pack, 150 GT Series(BK)

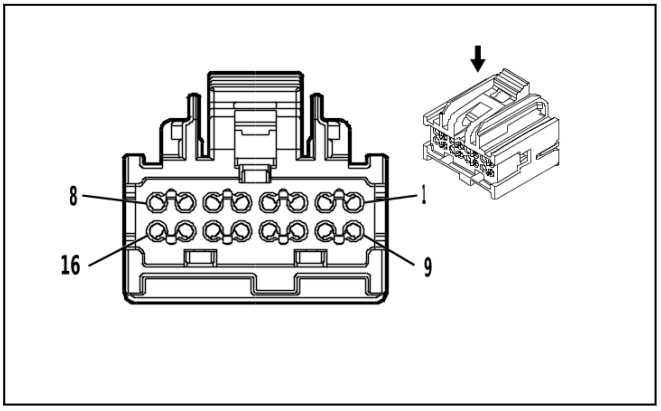
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575535	J-35616-64B (L-BU)	J-38125-21
II	13575735	J-35616-14 (GN)	J-38125-215A
III	13579976	J-35616-64B (L-BU)	J-38125-21

A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 1	(1) RD / WH	(1) 340	(1) Battery Positive Voltage	(1) II	(1) —
(2) 2	(2) 0.8	(2) BU	(2) 1857	(2) Left Front Midrange Speaker [+] Control	(2) III	(2) —
(3) 3	(3) 0.8	(3) OG	(3) 1853	(3) Right Front Midrange Speaker [+] Control	(3) III	(3) —
4 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.35	(7) YE	(7) 6817	(7) LED Backlight Dimming Control 1	(7) I	(7) —
(8) 8	(8) 1	(8) BK / WH	(8) 351	(8) Signal Ground	(8) II	(8) —
(9) 9	(9) 0.8	(9) BU	(9) 1957	(9) Left Front Midrange Speaker [-] Control	(9) III	(9) —
(10) 10	(10) 0.8	(10) GN	(10) 1953	(10) Right Front Midrange Speaker [-] Control	(10) III	(10) —
11 - 12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.35	(13) GN	(13) 5060	(13) Low Speed GMLAN Serial Data	(13) I	(13) —
14	—	—	—	Not Occupied	—	—

A11 Radio X2



2127936

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 13567860
- Service Connector: 13504130
- Description: 16-Way F 64 Micro-Series(PU)

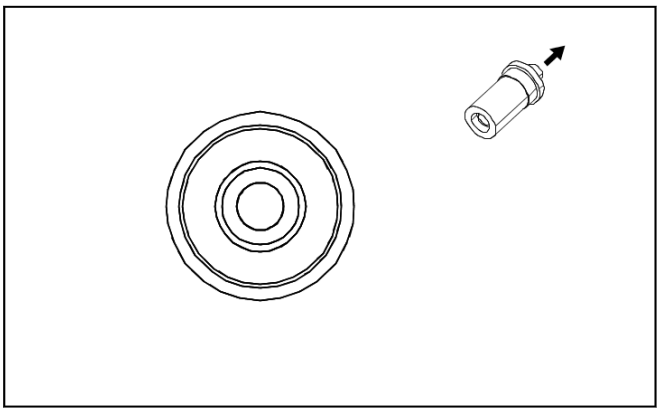
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13579976	J-35616-64B (L-BU)	J-38125-21

A11 Radio X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.8	(5) TN	(5) 1859	(5) Left Rear Midrange Speaker [+] Control	(5) I	(5) —
(6) 6	(6) 0.8	(6) TN	(6) 1855	(6) Right Rear Midrange Speaker [+] Control	(6) I	(6) —
(7) 7	(7) 0.8	(7) BU	(7) 658	(7) Cellular Telephone Voice Signal	(7) I	(7) —
8 - 12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.8	(13) WH	(13) 1959	(13) Left Rear Midrange Speaker [-] Control	(13) I	(13) —
(14) 14	(14) 0.8	(14) OG	(14) 1955	(14) Right Rear Midrange Speaker [-] Control	(14) I	(14) —
(15) 15	(15) 0.8	(15) BU / BK	(15) 659	(15) Cellular Telephone Voice Low Reference	(15) I	(15) —
16	—	—	—	Not Occupied	—	—

A11 Radio X3



3264028

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness COAX
- OEM Connector: 1438810-1
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way F Snap Lock Coax Type(BK)

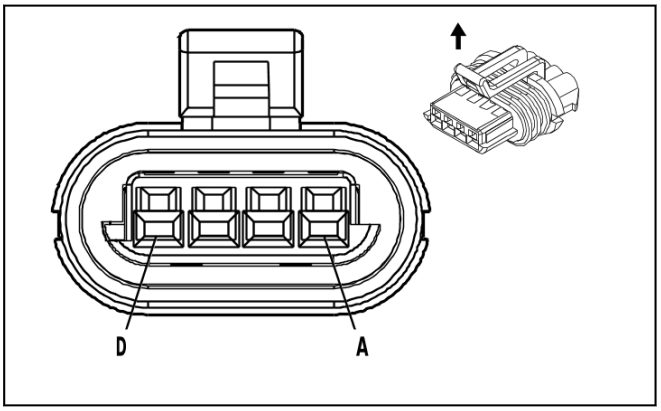
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(AM/FM) Antenna RF Signal	I	—

A23D Door Latch Assembly - Driver X1



684948

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 15354716
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 150 GT Series, Sealed(BK)

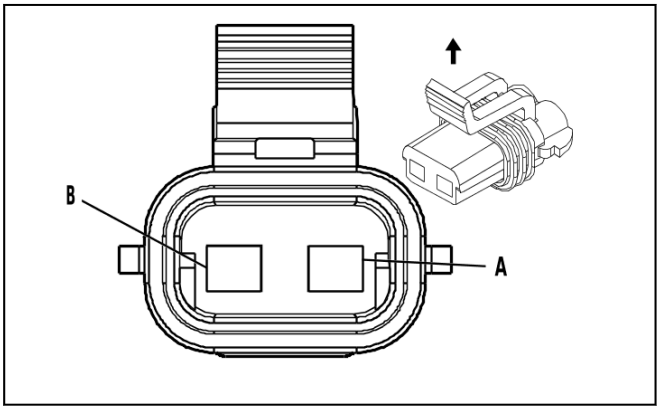
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

A23D Door Latch Assembly - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	TN	126	Left Front Door Open Switch Signal	I	—
B	0.35	GY / BK	745	Left Front Door Ajar Switch Signal	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	BK	450	Ground	I	—

A23D Door Latch Assembly - Driver X2



68721

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 15300027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

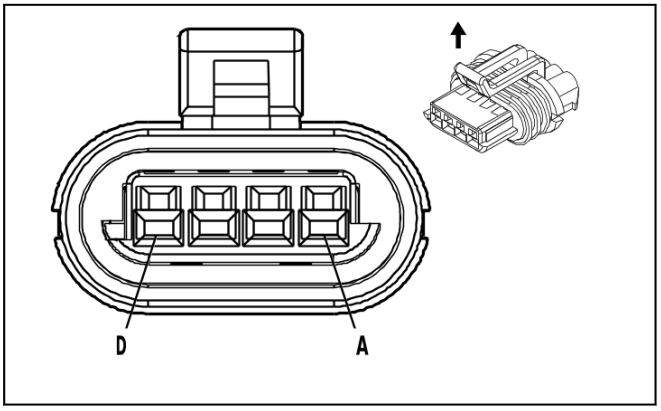
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

A23D Door Latch Assembly - Driver X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	694	Driver Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

A23P Door Latch Assembly - Passenger X1



684948

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 15354716
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 150 GT Series, Sealed(BK)

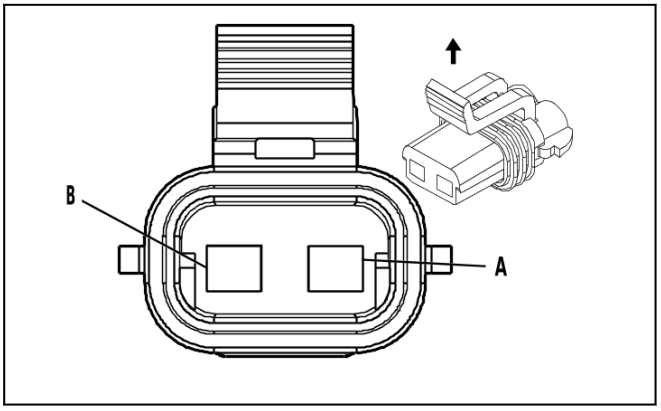
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

A23P Door Latch Assembly - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	TN / WH	746	Right Front Door Ajar Switch Signal	I	—
D	0.35	GN	1177	Right Front Door Open Switch Signal	I	—

A23P Door Latch Assembly - Passenger X2



68721

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 15300027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

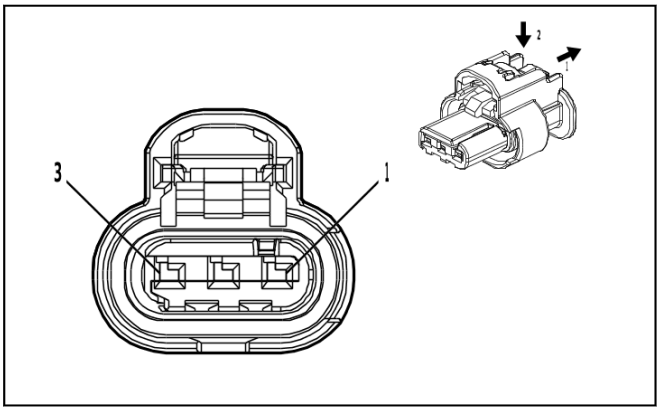
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

A23P Door Latch Assembly - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

B1 A/C Refrigerant Pressure Sensor



4581126

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 1-2296695-1
- Service Connector: 86792094
- Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

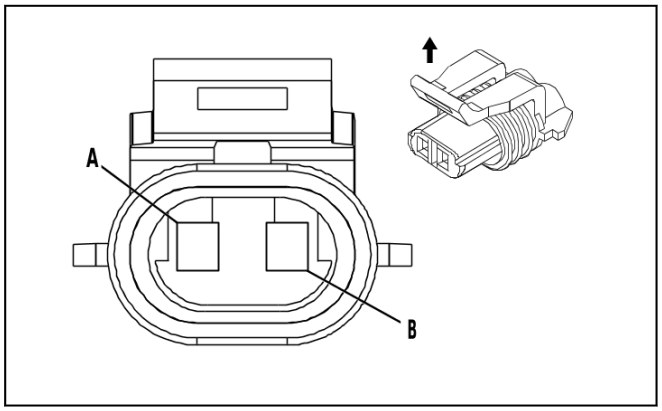
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B1 A/C Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU / RD	(1) 460	(1) Engine Control Sensors 5 Volt Reference 1	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN	(2) 380	(2) Air Conditioning Refrigerant Pressure Sensor Signal	(2) I	(2) —
(3) 3	(3) 0.5	(3) BK / GY	(3) 626	(3) Engine Control Vehicle Sensors Low Reference 1	(3) I	(3) —

B1B A/C Low Side Pressure Switch



537107

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 12052644
- Service Connector: 19368034
- Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

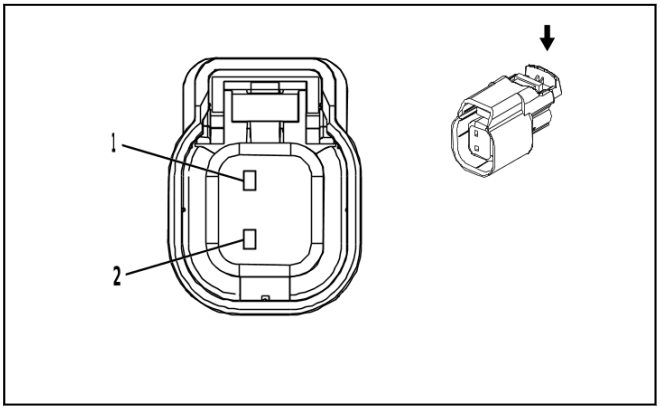
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B1B A/C Low Side Pressure Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	66	Air Conditioning Request Signal	I	—
B	0.5	BN / WH	66	Air Conditioning Request Signal	I	—

B5LF Wheel Speed Sensor - Left Front



2792100

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 34062-0027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

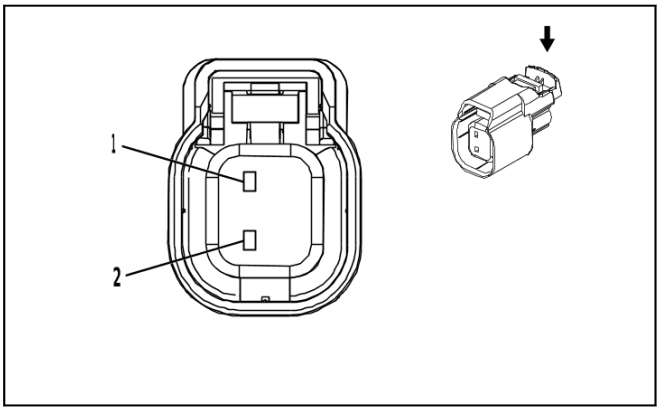
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / WH	(1) 7064	(1) Left Front Wheel Speed Sensor Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY	(2) 830	(2) Left Front Wheel Speed Sensor Signal	(2) I	(2) —

B5LR Wheel Speed Sensor - Left Rear



2792100

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 34062-0027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

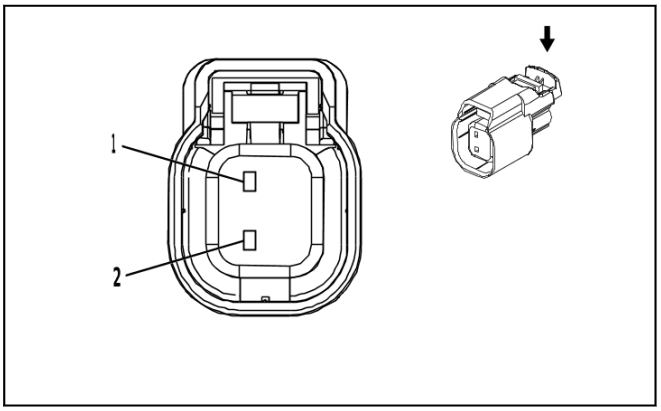
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5LR Wheel Speed Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / BK	(1) 7127	(1) Left Rear Wheel Speed Sensor Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU	(2) 884	(2) Left Rear Wheel Speed Sensor Signal	(2) I	(2) —

B5RF Wheel Speed Sensor - Right Front



2792100

Connector Part Information

- Harness Type: Chassis Wiring Harness
- OEM Connector: 34062-0027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

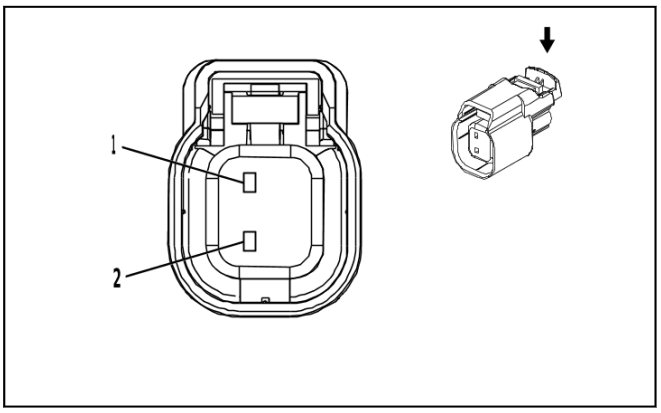
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RF Wheel Speed Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / BN	(1) 7065	(1) Right Front Wheel Speed Sensor Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) YE	(2) 872	(2) Right Front Wheel Speed Sensor Signal	(2) I	(2) —

B5RR Wheel Speed Sensor - Right Rear (- R04)



2792100

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 34062-0027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

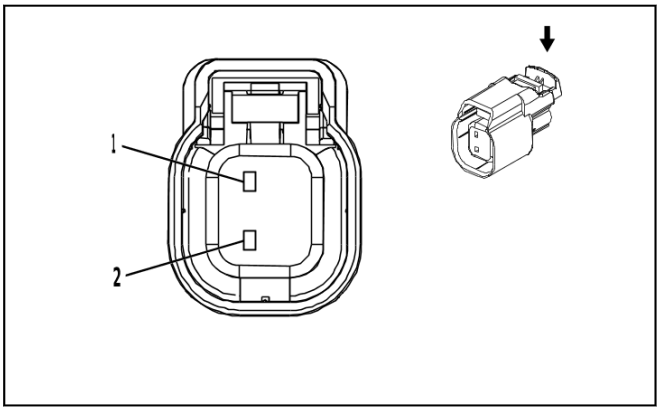
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (- R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / YE	(1) 7128	(1) Right Rear Wheel Speed Sensor Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) VT	(2) 882	(2) Right Rear Wheel Speed Sensor Signal	(2) I	(2) —

B5RR Wheel Speed Sensor - Right Rear (R04)



2792100

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 34062-0027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

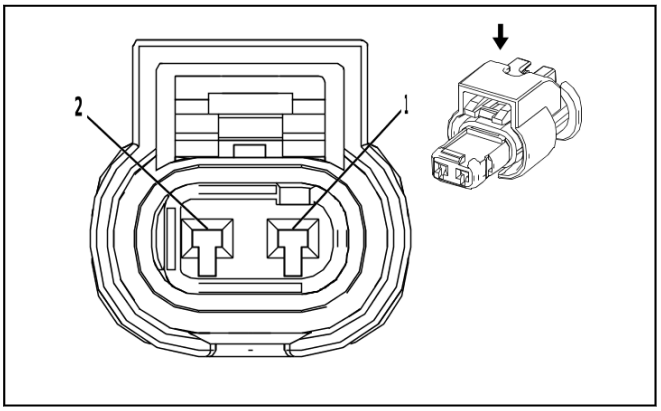
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RR Wheel Speed Sensor - Right Rear (R04)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / YE	(1) 7128	(1) Right Rear Wheel Speed Sensor Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) VT	(2) 882	(2) Right Rear Wheel Speed Sensor Signal	(2) I	(2) —

B9 Ambient Air Temperature Sensor (LV1 / L8T)



2474752

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 13586143
- Service Connector: 85761014
- Description: 2-Way F 1.2 MCON Series, Sealed(BK)

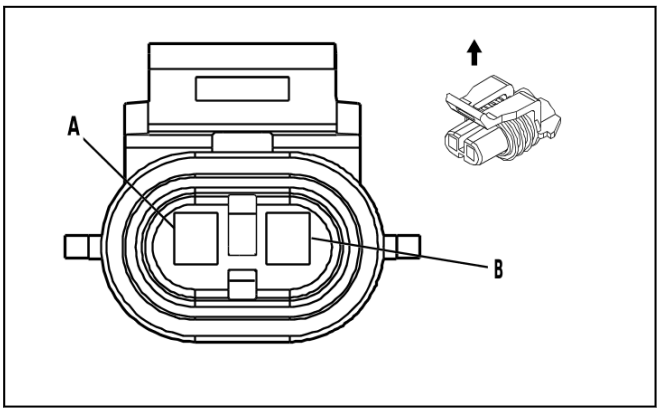
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B9 Ambient Air Temperature Sensor (LV1 / L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) BU / GY	(1) 636	(1) Ambient Air Temperature Sensor Signal	(1) I	(1) —
(2) 2	(2) —	(2) BK / GN	(2) 580	(2) Engine Control Sensors Low Reference 2	(2) I	(2) —

B9 Ambient Air Temperature Sensor (UFA)



684793

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12052642
- Service Connector: 12101856
- Description: 2-Way F 150 Metri-Pack Series, Sealed(L-GN)

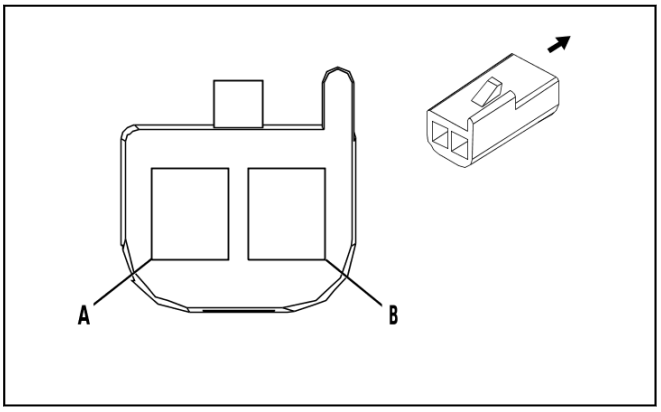
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B9 Ambient Air Temperature Sensor (UFA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	I	—
B	0.5	BK / BU	61	Ambient Air Temperature Sensor Low Reference	I	—

B10 Ambient Light Sensor



82383

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12047662
- Service Connector: 12085535
- Description: 2-Way F 150 Metri-Pack Series(BK)

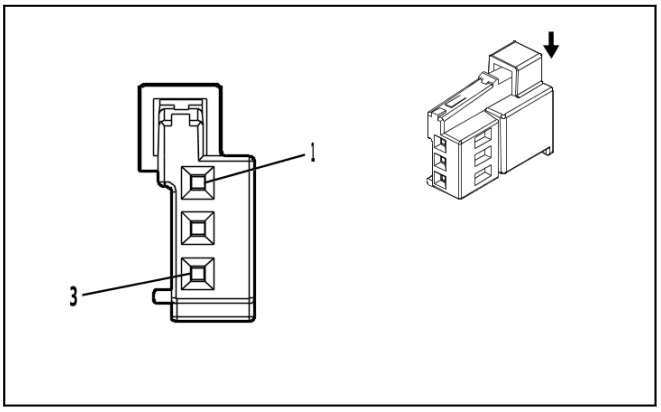
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B10 Ambient Light Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	WH	278	Ambient Light Sensor Signal	I	—
B	0.35	BK / WH	351	Signal Ground	I	—

B12B Transmission Fluid Pressure Sensor



4829276

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 2293842-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Series(BU)

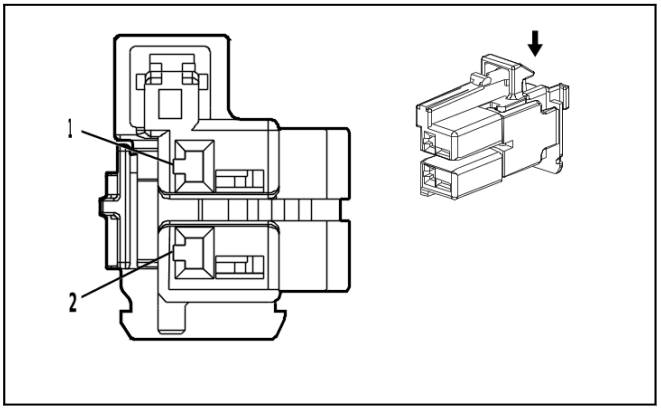
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B12B Transmission Fluid Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / RD	(1) 10817	(1) Lubricant Circuit Pressure Sensor 5 Volt Reference	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU / BK	(2) 10819	(2) Lubricant Circuit Pressure Sensor Low Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN / YE	(3) 10816	(3) Lubricant Circuit Pressure Sensor Signal	(3) I	(3) —

B13 Transmission Fluid Temperature Sensor



4672650

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 312004A
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series(BN)

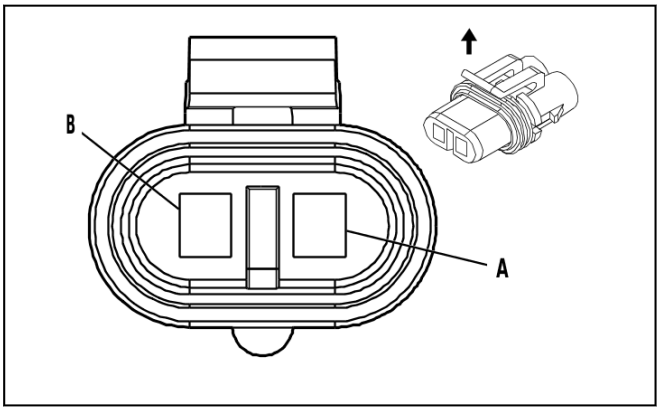
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B13 Transmission Fluid Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN / WH	(1) 585	(1) Transmission Fluid Temperature Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / BN	(2) 586	(2) Transmission Fluid Temperature Sensor Low Reference	(2) I	(2) —

B19A Brake Booster Fluid Pressure Alarm Switch (UJ1)



646148

Connector Part Information
- Harness Type: Brake Fluid Level Indicator Wiring Harness
- OEM Connector: 12020599
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

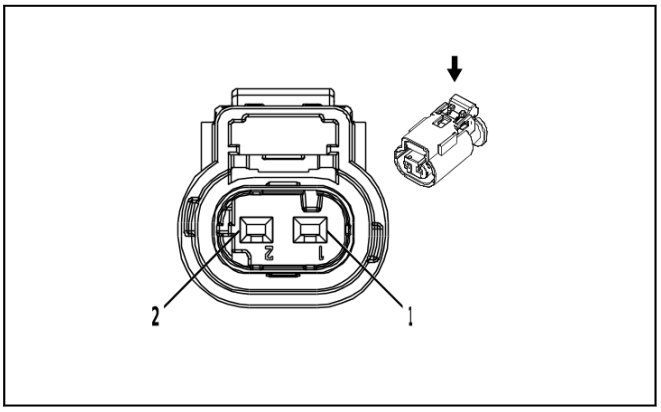
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

B19A Brake Booster Fluid Pressure Alarm Switch (UJ1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN / WH	33	Brake Warning Indicator Control	I	—
B	0.5	BU / BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B20 Brake Fluid Level Switch



2717066

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 10010337
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

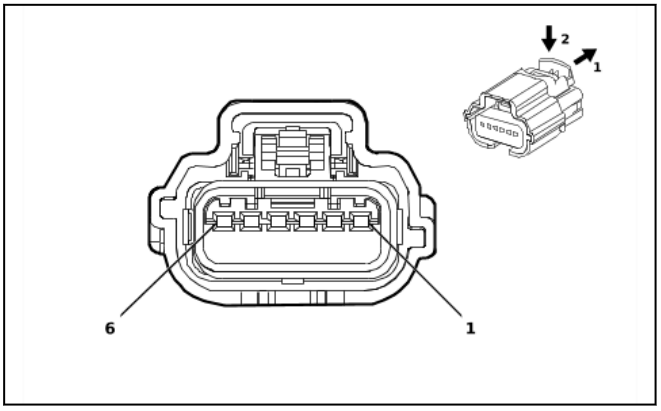
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK / WH	(1) 1551	(1) Signal Ground	(1) I	(1) —
(2) 2	(2) 0.75	(2) GN / GY	(2) 333	(2) Brake Fluid Level Signal	(2) I	(2) —

B22 Brake Pedal Position Sensor



4773396

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 31404-7810
- Service Connector: 84683650
- Description: 6-Way F 64 Series, Sealed(NA)

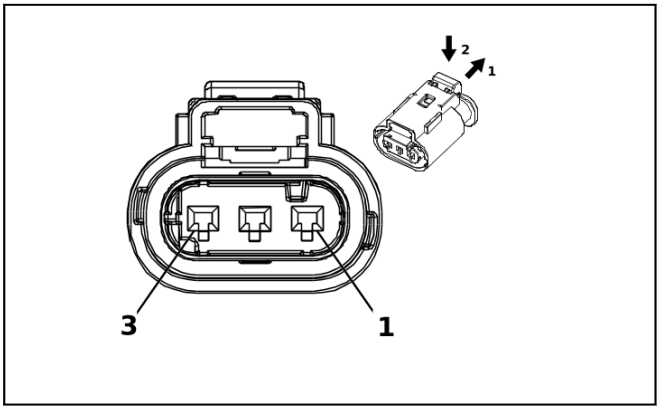
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN / WH	(1) 5382	(1) Brake Position Sensor Low Reference	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY	(2) 5381	(2) Brake Position Sensor 5V Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) TN	(3) 5380	(3) Brake Position Sensor Signal	(3) I	(3) —
(4) 4	(4) 0.5	(4) YE	(4) 5361	(4) Brake Apply Sensor Signal	(4) I	(4) —
(5) 5	(5) 0.5	(5) BN	(5) 5360	(5) Brake Apply Sensor Low Reference	(5) I	(5) —
(6) 6	(6) 0.5	(6) WH	(6) 5359	(6) Brake Apply Sensor Control	(6) I	(6) —

B23 Camshaft Position Sensor



2717069

Connector Part Information

- Harness Type: Camshaft Position Sensor Wire
- OEM Connector: 10010341
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

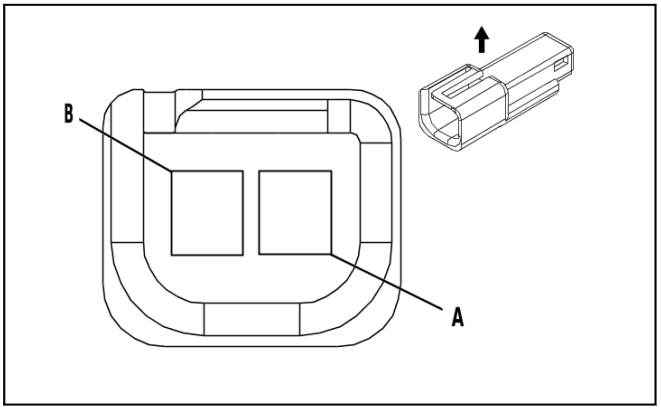
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B23 Camshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / BU	(1) 5300	(1) Intake Camshaft Position Sensor 1 Voltage Reference	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / GN	(2) 5301	(2) Intake Camshaft Position Sensor Low Reference 1	(2) I	(2) —
(3) 3	(3) 0.5	(3) YE / VT	(3) 5275	(3) Intake Camshaft Position Sensor 1	(3) I	(3) —

B24 Mobile Telephone Microphone (UE1)



35441

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12047663
- Service Connector: 13584278
- Description: 2-Way M 150 Metri-Pack Series(BK)

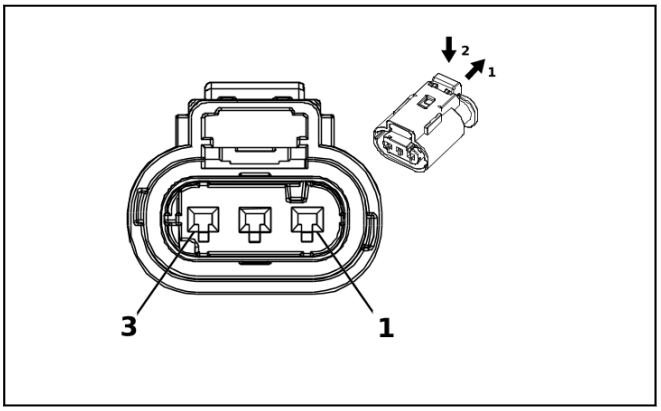
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

B24 Mobile Telephone Microphone (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GN	654	Cellular Telephone Microphone Low Reference	I	—
B	0.8	GY	655	Cellular Telephone Microphone Signal	I	—

B26 Crankshaft Position Sensor



2717069

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 10010341
- Service Connector: 84601390
- Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

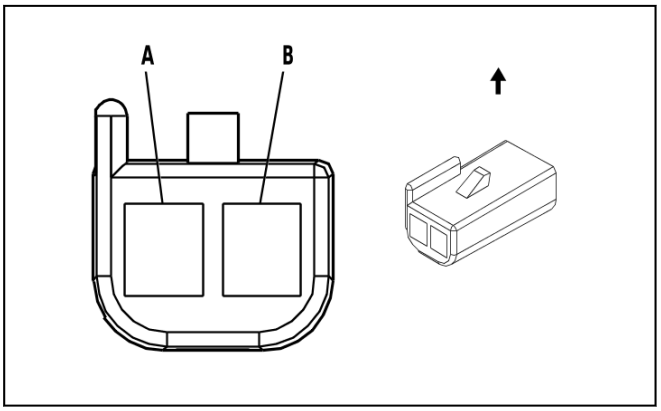
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B26 Crankshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN	(1) 6271	(1) Crankshaft Position Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / VT	(2) 6272	(2) Crankshaft Position Sensor Low Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) VT / BU	(3) 6270	(3) Crankshaft Position Sensor Voltage	(3) I	(3) —

B28F Door Ajar Switch - Right Sliding



35451

Connector Part Information

- Harness Type: Body Wiring Harness
- OEM Connector: 12059251
- Service Connector: 12101848
- Description: 2-Way F 150 Metri-Pack Series(RD)

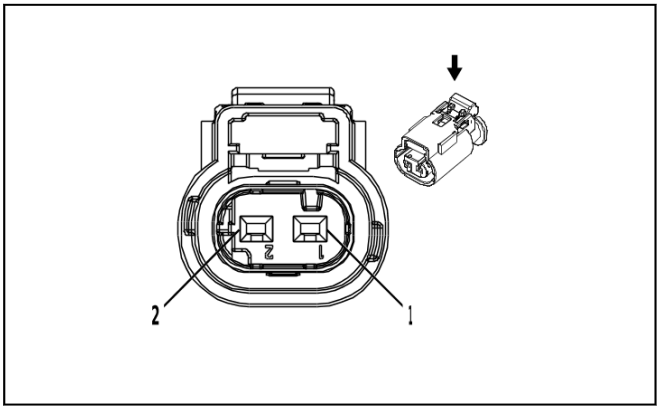
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B28F Door Ajar Switch - Right Sliding

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	0.35	YE / BK	1181	Right Rear Door Open Switch Signal	I	—

B34 Engine Coolant Temperature Sensor (L8T)



2717066

Connector Part Information
- Harness Type: Engine Coolant Temperature Sensor Harness
- OEM Connector: 10010337
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

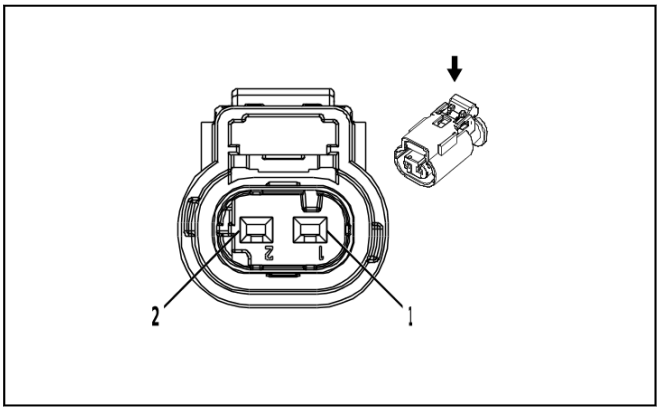
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B34 Engine Coolant Temperature Sensor (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU	(1) 410	(1) Engine Coolant Temperature Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / YE	(2) 548	(2) Engine Control Sensors Low Reference 1	(2) I	(2) —

B34 Engine Coolant Temperature Sensor (LV1)



2717066

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 10010337
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

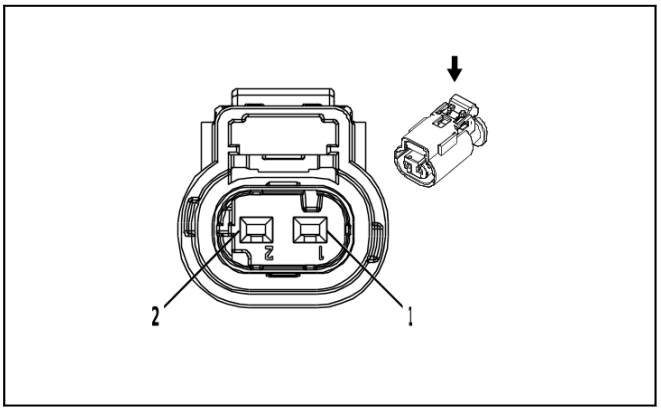
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B34 Engine Coolant Temperature Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU	(1) 410	(1) Engine Coolant Temperature Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / YE	(2) 548	(2) Engine Control Sensors Low Reference 1	(2) I	(2) —

B35 Engine Oil Level Switch (L8T)



2717066

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 10010337
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

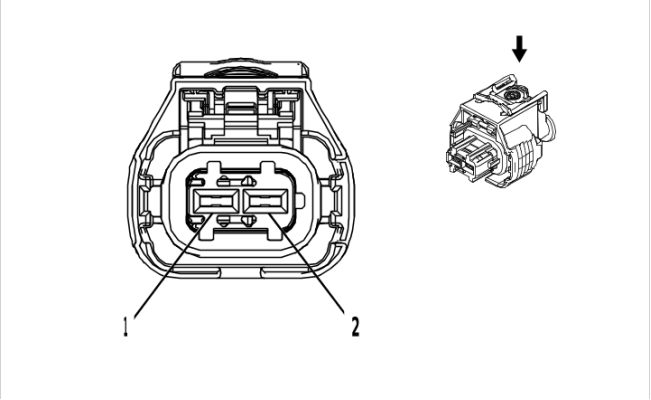
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B35 Engine Oil Level Switch (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN / GN	(1) 1174	(1) Oil Level Switch Signal	(1) I	(1) —
(2) 2	(2) 0.75	(2) BK / WH	(2) 1551	(2) Signal Ground	(2) I	(2) —

B35 Engine Oil Level Switch (LV1)



2577394

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 1 928 405 714
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed(BK)

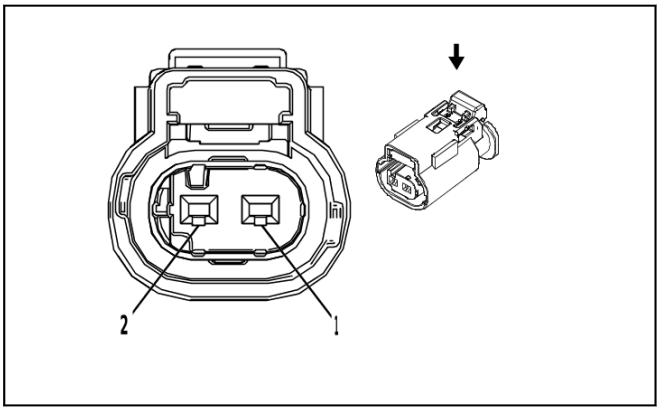
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

B35 Engine Oil Level Switch (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN / GN	(1) 1174	(1) Oil Level Switch Signal	(1) I	(1) —
(2) 2	(2) 0.75	(2) BK / WH	(2) 1551	(2) Signal Ground	(2) I	(2) —

B36 Engine Oil Temperature Sensor (L8T)



2830969

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 10010339
- Service Connector: 13587321
- Description: 2-Way F 1.2 Multilock Series, Sealed(D-GY)

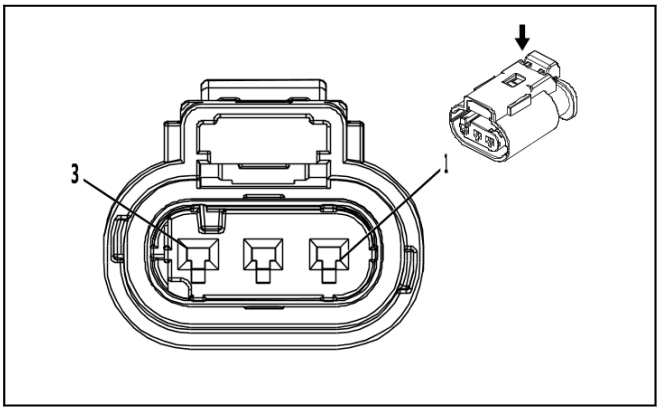
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B36 Engine Oil Temperature Sensor (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN / BU	(1) 357	(1) Oil Temperature Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / YE	(2) 548	(2) Engine Control Sensors Low Reference 1	(2) I	(2) —

B37B Engine Oil Pressure Sensor



3240107

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 10010344
- Service Connector: 19301717
- Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

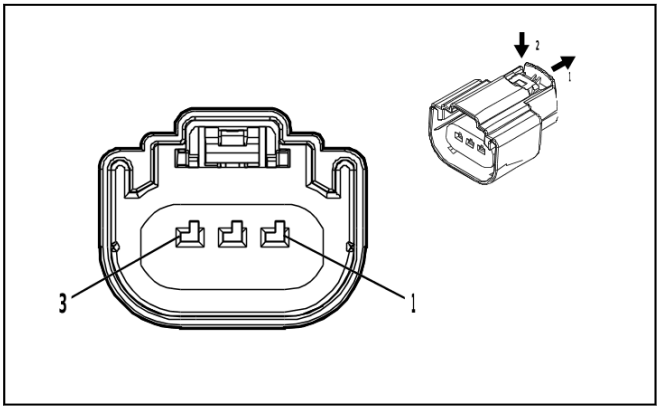
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B37B Engine Oil Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) YE / BN	(1) 331	(1) Oil Pressure Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / YE	(2) 548	(2) Engine Control Sensors Low Reference 1	(2) I	(2) —
(3) 3	(3) 0.5	(3) WH / RD	(3) 480	(3) Engine Control Vehicle Sensors 5 Volt Reference 1	(3) I	(3) —

B47 Fuel Pressure Sensor - Without Cutaway



4569745

Connector Part Information

- Harness Type: Chassis Wiring Harness
- OEM Connector: 33343869
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.5 MX Series, Sealed(BK)

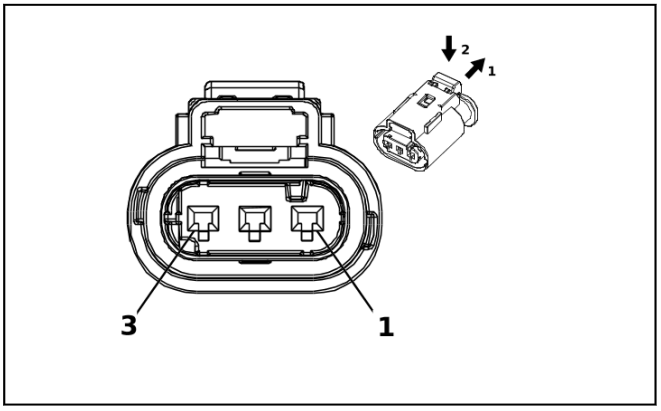
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

B47 Fuel Pressure Sensor - Without Cutaway

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU / WH	(1) 7446	(1) Fuel Pressure Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / YE	(2) 7447	(2) Fuel Pressure Sensor Low Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) BN / RD	(3) 7445	(3) Fuel Line Pressure Sensor 5V Reference	(3) I	(3) —

B47 Fuel Pressure Sensor - Cutaway



2717069

Connector Part Information

- Harness Type: Chassis Wiring Harness
- OEM Connector: 13763990
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

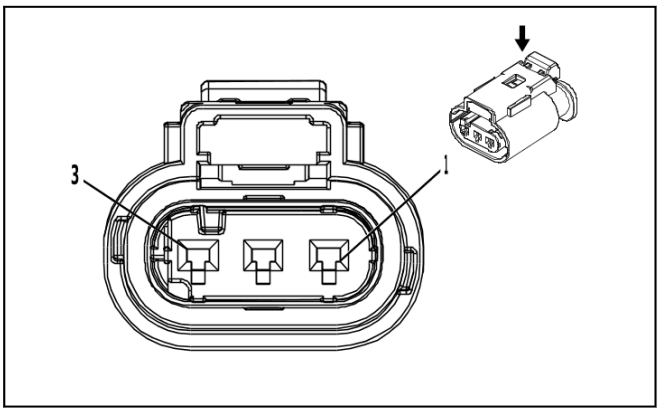
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B47 Fuel Pressure Sensor - Cutaway

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN / RD	(1) 7445	(1) Fuel Line Pressure Sensor 5V Reference	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / YE	(2) 7447	(2) Fuel Pressure Sensor Low Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) BU / WH	(3) 7446	(3) Fuel Pressure Sensor Signal	(3) I	(3) —

B47B Fuel Rail Pressure Sensor



3240107

Connector Part Information

- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 10010344
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

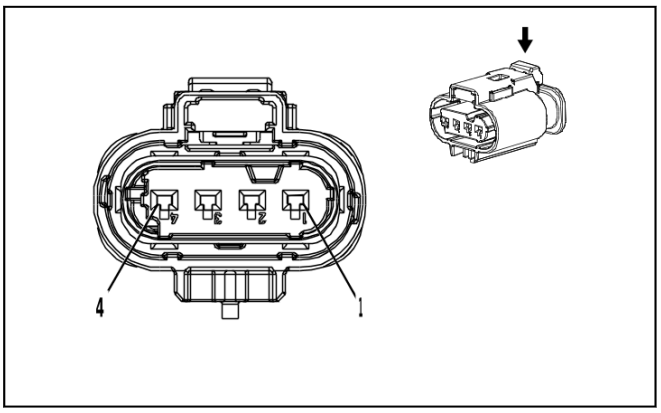
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B47B Fuel Rail Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BK / YE	(1) 548	(1) Engine Control Sensors Low Reference 1	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU / WH	(2) 2918	(2) Fuel Rail Pressure Sensor Signal	(2) I	(2) —
(3) 3	(3) 0.5	(3) WH / RD	(3) 480	(3) Engine Control Vehicle Sensors 5 Volt Reference 1	(3) I	(3) —

B52C Heated Oxygen Sensor - Bank 1 Sensor 1



4381050

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 10021267
- Service Connector: 19354075
- Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

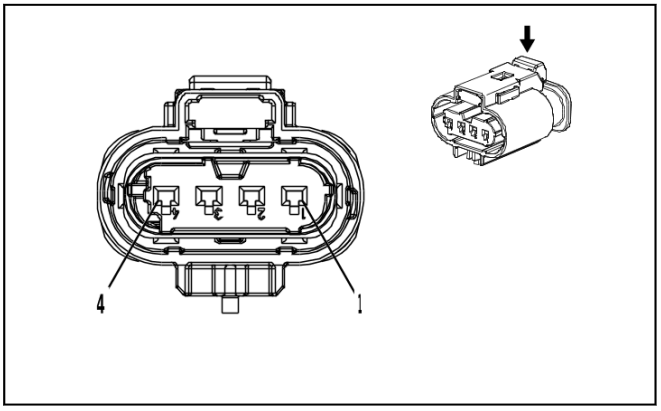
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / WH	(1) 3113	(1) HO2S Heater Low Control Bank 1 Sensor 1	(1) I	(1) —
(2) 2	(2) 0.5	(2) VT / BU	(2) 5293	(2) Powertrain Main Relay Fused Supply Voltage 4	(2) I	(2) —
(3) 3	(3) 0.5	(3) WH / BK	(3) 3111	(3) HO2S Low Signal Bank 1 Sensor 1	(3) I	(3) —
(4) 4	(4) 0.5	(4) VT / GY	(4) 3110	(4) HO2S High Signal Bank 1 Sensor 1	(4) I	(4) —

B52D Heated Oxygen Sensor - Bank 1 Sensor 2



4036370

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 10021266
- Service Connector: 19330920
- Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

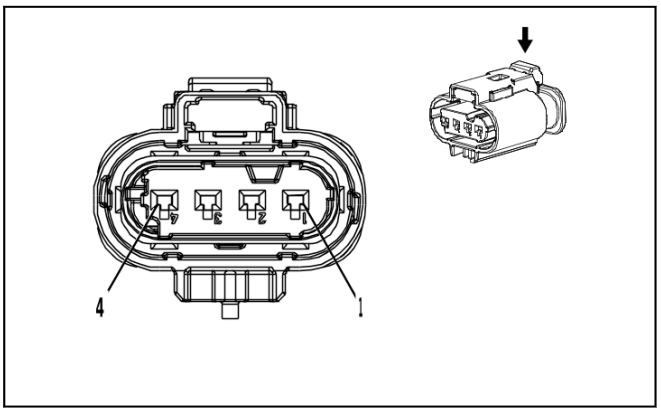
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / WH	(1) 3122	(1) HO2S Heater Low Control Bank 1 Sensor 2	(1) I	(1) —
(2) 2	(2) 0.5	(2) VT / BU	(2) 5294	(2) Powertrain Main Relay Fused Supply Voltage 5	(2) I	(2) —
(3) 3	(3) 0.5	(3) WH / YE	(3) 3121	(3) HO2S Low Signal Bank 1 Sensor 2	(3) I	(3) —
(4) 4	(4) 0.5	(4) VT / BU	(4) 3120	(4) HO2S High Signal Bank 1 Sensor 2	(4) I	(4) —

B52E Heated Oxygen Sensor - Bank 2 Sensor 1



4381050

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 10021267
- Service Connector: 19354075
- Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

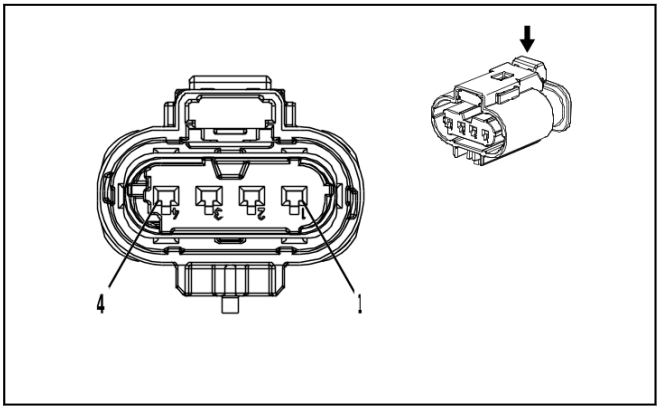
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52E Heated Oxygen Sensor - Bank 2 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / YE	(1) 3212	(1) HO2S Heater Low Control Bank 2 Sensor 1	(1) I	(1) —
(2) 2	(2) 0.5	(2) VT / BU	(2) 5293	(2) Powertrain Main Relay Fused Supply Voltage 4	(2) I	(2) —
(3) 3	(3) 0.5	(3) YE / WH	(3) 3211	(3) HO2S Low Signal Bank 2 Sensor 1	(3) I	(3) —
(4) 4	(4) 0.5	(4) VT / WH	(4) 3210	(4) HO2S High Signal Bank 2 Sensor 1	(4) I	(4) —

B52F Heated Oxygen Sensor - Bank 2 Sensor 2



4036370

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 10021266
- Service Connector: 19330920
- Description: 4-Way F 1.2 Multilock Series, Sealed(GY)

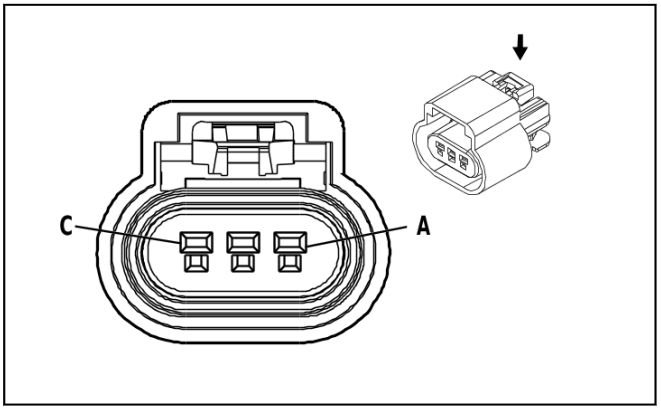
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH / BN	(1) 3223	(1) HO2S Heater Low Control Bank 2 Sensor 2	(1) I	(1) —
(2) 2	(2) 0.5	(2) VT / BU	(2) 5294	(2) Powertrain Main Relay Fused Supply Voltage 5	(2) I	(2) —
(3) 3	(3) 0.5	(3) YE / BU	(3) 3221	(3) HO2S Low Signal Bank 2 Sensor 2	(3) I	(3) —
(4) 4	(4) 0.5	(4) VT / GN	(4) 3220	(4) HO2S High Signal Bank 2 Sensor 2	(4) I	(4) —

B55 Engine Hood Switch (BTV)



646415

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 13519047
- Service Connector: 19368886
- Description: 3-Way F 150 GT Series, Sealed(BK)

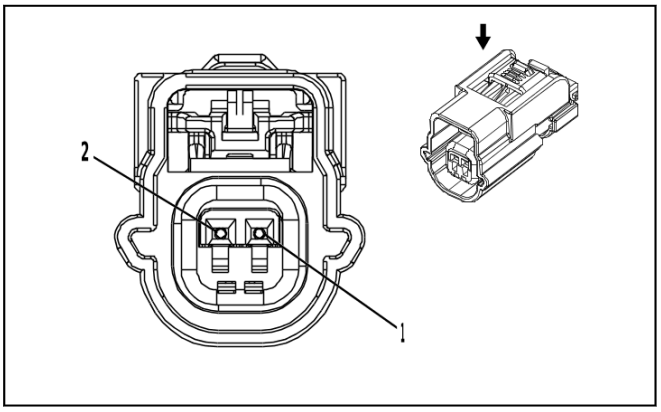
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

B55 Engine Hood Switch (BTV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN / GN	109	Hood Ajar Switch Signal	I	—
B	0.5	BK / BN	5531	Hood Closed Switch Signal	I	—
C	0.5	BK	250	Ground	I	—

B59 Front Impact Sensor



3556418

Connector Part Information
- Harness Type: Front Seat Wiring Harness
- OEM Connector: 13593078
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 Series, Sealed(GY)

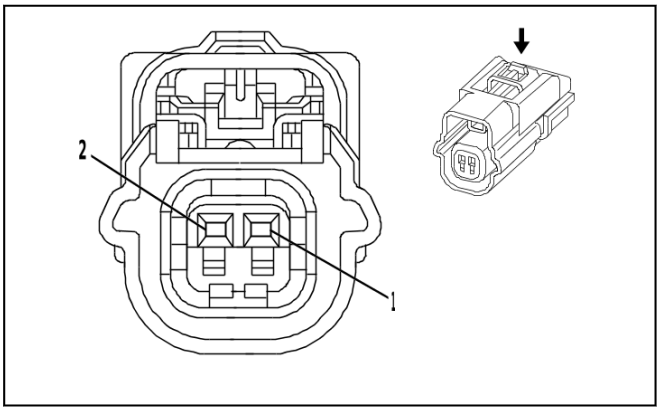
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B59 Front Impact Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN / WH	(1) 6618	(1) Front Middle Impact Discriminating Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU / WH	(2) 6619	(2) Front Middle Impact Discriminating Sensor Low Reference	(2) I	(2) —

B63LF Side Impact Sensor - Left Front (ASF)



1664592

Connector Part Information

- Harness Type: Airbag Wiring Harness
- OEM Connector: 13528494
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 Kaizen Series, Sealed(BK)

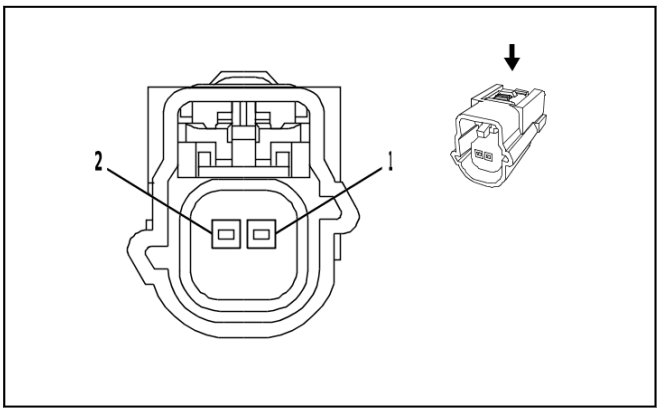
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63LF Side Impact Sensor - Left Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH	(1) 2132	(1) Left Front Side Impact Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) PU / WH	(2) 6628	(2) Left Front Side Impact Sensor Low Reference	(2) I	(2) —

B63LR Side Impact Sensor - Left Rear (ASF)



2179777

Connector Part Information
- Harness Type: Airbag Wiring Harness
- OEM Connector: 13610095
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 Series, Sealed(GY)

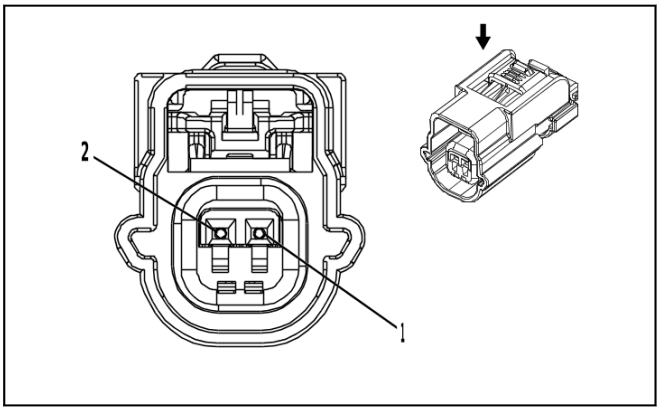
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63LR Side Impact Sensor - Left Rear (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / WH	(1) 6620	(1) Left Middle Side Impact Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY / BK	(2) 6621	(2) Left Middle Side Impact Sensor Low Reference	(2) I	(2) —

B63RF Side Impact Sensor - Right Front (ASF)



3556418

Connector Part Information
- Harness Type: Side Impact Sensor - Right Front Jumper
- OEM Connector: 89047492
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 Series, Sealed(GY)

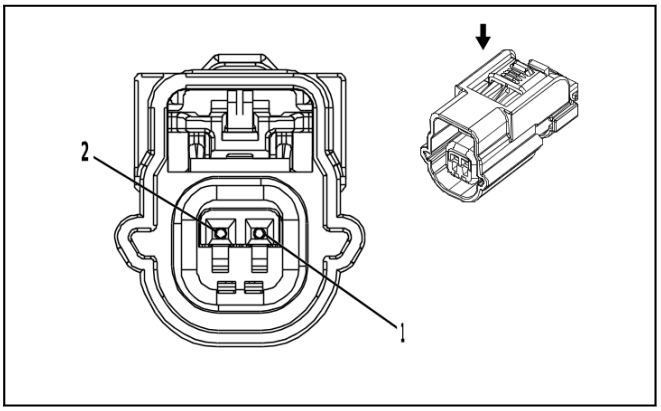
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RF Side Impact Sensor - Right Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) GN	(1) 2134	(1) Right Front Side Impact Sensor Signal	(1) I	(1) —
(2) 2	(2) —	(2) WH / BK	(2) 6629	(2) Right Front Side Impact Sensor Low Reference	(2) I	(2) —

B63RR Side Impact Sensor - Right Rear (E24)



3556418

Connector Part Information

- Harness Type: Airbag Wiring Harness
- OEM Connector: 13593078
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 Series, Sealed(GY)

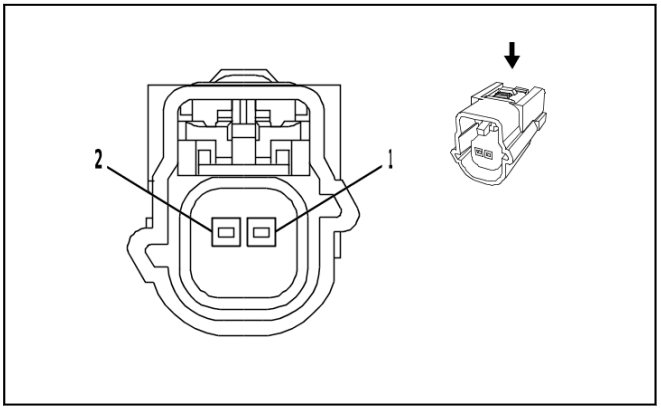
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU / BK	(1) 6624	(1) Right Middle Side Impact Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / WH	(2) 6625	(2) Right Middle Side Impact Sensor Low Reference	(2) I	(2) —

B63RR Side Impact Sensor - Right Rear (YA2)



2179777

Connector Part Information
- Harness Type: Airbag Wiring Harness
- OEM Connector: 13610095
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 Series, Sealed(GY)

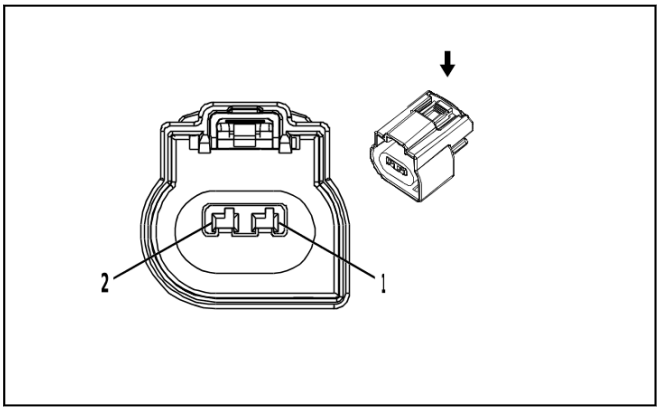
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RR Side Impact Sensor - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU / BK	(1) 6624	(1) Right Middle Side Impact Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / WH	(2) 6625	(2) Right Middle Side Impact Sensor Low Reference	(2) I	(2) —

B68A Knock Sensor 1



2717073

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 34752-0204
- Service Connector: 19301207
- Description: 2-Way F 1.5 MX Series, Sealed(BK)

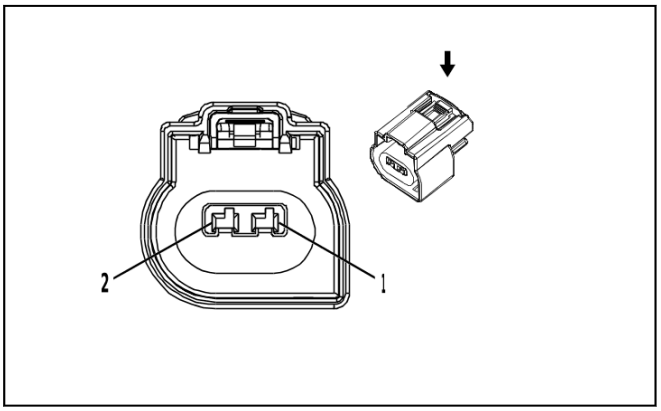
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required

B68A Knock Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75 (1) 0.75	(1) VT / GY (1) VT / GY	(1) 496 (1) 496	(1) Knock Sensor 1 Signal (1) Knock Sensor 1 Signal	(1) II (1) I	(1) L8T (1) LV1
(2) 2	(2) 0.75 (2) 0.75	(2) BK / YE (2) BK / YE	(2) 1716 (2) 1716	(2) Knock Sensor Low Reference 1 (2) Knock Sensor Low Reference 1	(2) II (2) I	(2) L8T (2) LV1

B68B Knock Sensor 2



2717073

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 34752-0204
- Service Connector: 19301207
- Description: 2-Way F 1.5 MX Series, Sealed(BK)

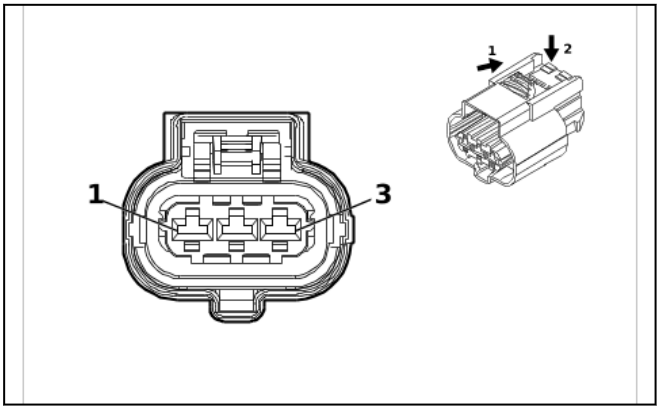
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B68B Knock Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) WH / GY	(1) 1876	(1) Knock Sensor 2 Signal	(1) I	(1) —
(2) 2	(2) 0.75	(2) BK / GY	(2) 2303	(2) Knock Sensor Low Reference 2	(2) I	(2) —

B74 Manifold Absolute Pressure Sensor



4900977

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 35133579
- Service Connector: 84815530
- Description: 3-Way F 2.8 CTS Series, Sealed(BK)

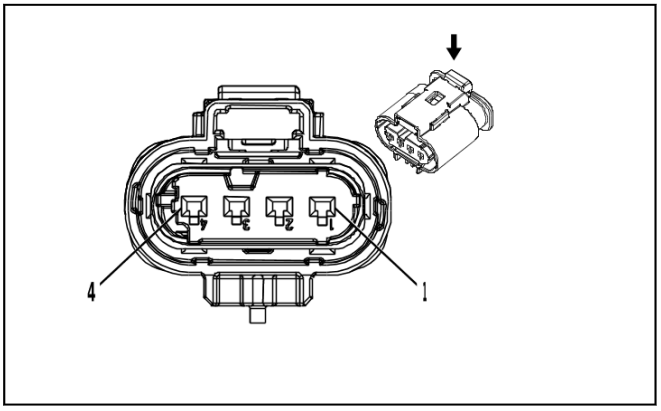
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

B74 Manifold Absolute Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / RD	(1) 2704	(1) Manifold Absolute Pressure Sensor 5V Reference	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / GN	(2) 469	(2) Manifold Absolute Pressure Sensor Low Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN / WH	(3) 432	(3) Manifold Absolute Pressure Sensor Signal	(3) I	(3) —

B75C Multifunction Intake Air Sensor



2717096

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 10010347
- Service Connector: 13587298
- Description: 4-Way F 1.2 Multilock Series, Sealed(L-GY)

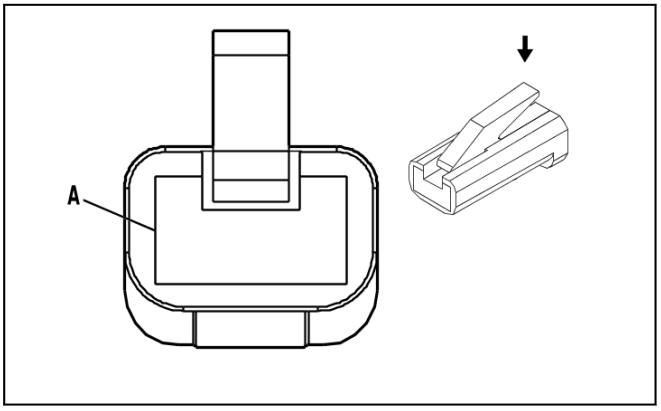
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B75C Multifunction Intake Air Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) VT / BU	(1) 5294	(1) Powertrain Main Relay Fused Supply Voltage 5	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / WH	(2) 492	(2) Mass Air Flow Sensor Signal	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN / WH	(3) 4622	(3) Engine Control Module LIN Bus 2	(3) I	(3) —
(4) 4	(4) 0.75	(4) BK / WH	(4) 1551	(4) Signal Ground	(4) I	(4) —

B80 Park Brake Switch



35348

Connector Part Information
- Harness Type: Park Brake Switch Jumper
- OEM Connector: 12004267
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 5.6 Series(BK)

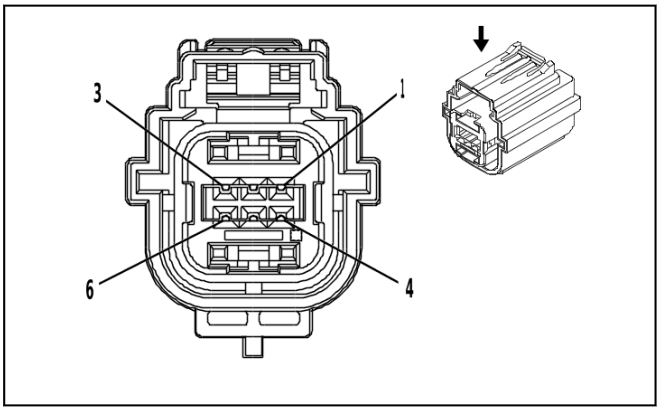
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B80 Park Brake Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	1134	Park Brake Switch Signal	I	—

B87 Rearview Camera (UVC)



2133378

Connector Part Information
- Harness Type: Rearview Camera Wiring Harness
- OEM Connector: 1924211-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Series, Sealed(GY)

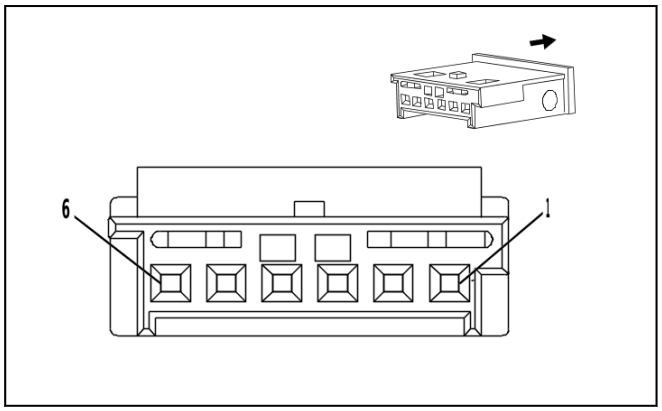
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B87 Rearview Camera (UVC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU / YE	(1) 7641	(1) Frontview Camera 2 Signal [+]	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK	(2) 6799	(2) Camera Shield Ground	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN	(3) 24	(3) Backup Lamp Control	(3) I	(3) —
(4) 4	(4) 0.5	(4) BU	(4) 7642	(4) Frontview Camera 2 Signal [-]	(4) I	(4) —
(5) 5	(5) 0.5	(5) BK / WH	(5) 351	(5) Signal Ground	(5) I	(5) —
(6) 6	(6) 0.5	(6) PK	(6) 239	(6) Run/Crank Ignition 1 Voltage	(6) I	(6) —

B99 Steering Wheel Angle Sensor



1862024

Connector Part Information

- Harness Type: Steering Column
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way

Terminal Part Information

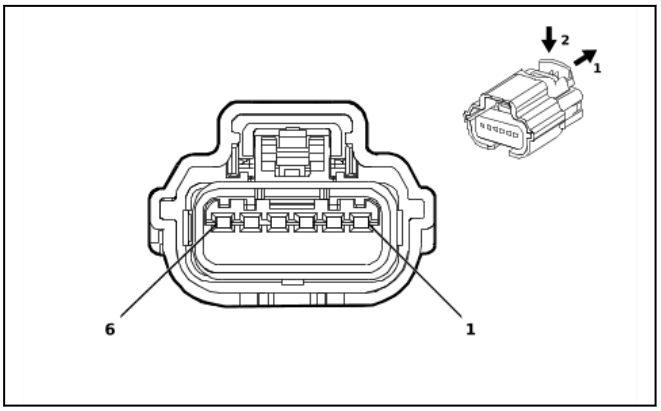
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B99 Steering Wheel Angle Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) WH	(1) 6106	(1) High Speed GMLAN Serial Data [-] 2	(1) I	(1) —
(2) 2	(2) —	(2) WH	(2) 6106	(2) High Speed GMLAN Serial Data [-] 2	(2) I	(2) —
(3) 3	(3) —	(3) BU / YE	(3) 6105	(3) High Speed GMLAN Serial Data [+] 2	(3) I	(3) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(4) 4	(4) —	(4) BU / YE	(4) 6105	(4) High Speed GMLAN Serial Data [+] 2	(4) I	(4) —
(5) 5	(5) —	(5) GN / BN	(5) 2087	(5) Multi-axis Acceleration Sensor Supply Voltage	(5) I	(5) —
(6) 6	(6) —	(6) BK / WH	(6) 351	(6) Signal Ground	(6) I	(6) —

B107 Accelerator Pedal Position Sensor



5157678

Connector Part Information
- Harness Type: Accelerator Control Wiring Harness
- OEM Connector: 35199156
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 64 Series, Sealed(BK)

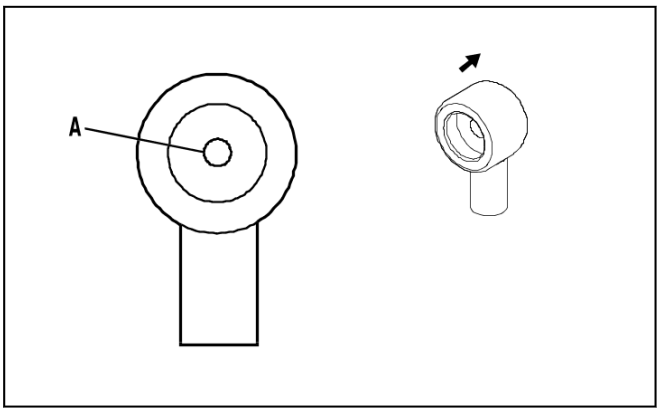
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) WH / RD	(1) 1164	(1) Accelerator Pedal Position 5V Reference 1	(1) I	(1) —
(2) 2	(2) 0.35	(2) YE / WH	(2) 1161	(2) Accelerator Pedal Position Signal 1	(2) I	(2) —
(3) 3	(3) 0.35	(3) BK / BU	(3) 1271	(3) Accelerator Pedal Position Low Reference 1	(3) I	(3) —
(4) 4	(4) 0.35	(4) BK / VT	(4) 1272	(4) Accelerator Pedal Position Low Reference 2	(4) I	(4) —
(5) 5	(5) 0.35	(5) GN / WH	(5) 1162	(5) Accelerator Pedal Position Signal 2	(5) I	(5) —
(6) 6	(6) 0.35	(6) BN / RD	(6) 1274	(6) Accelerator Pedal Position 5V Reference 2	(6) I	(6) —

B133 Brake Booster Fluid Flow Alarm Switch X1 (UJ1)



2004808

Connector Part Information
- Harness Type: Brake Fluid Level Indicator Wiring Harness
- OEM Connector: 6288440
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F Grip Series(BK)

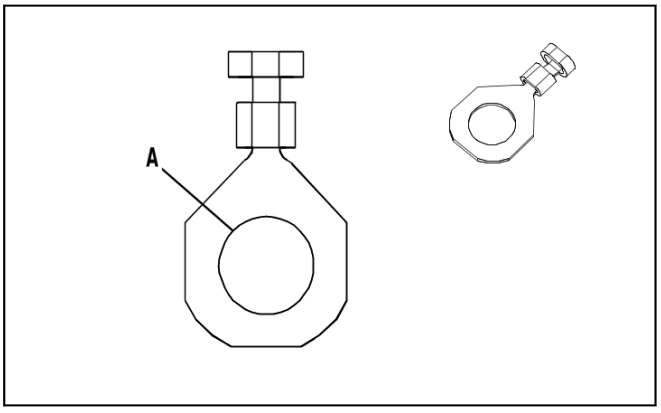
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X1 (UJ1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU / BK	1928	Brake Booster Fluid Flow Alarm Switch Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X2 (UJ1)



3240148

Connector Part Information
- Harness Type: Brake Fluid Level Indicator Wiring Harness
- OEM Connector: 12103516
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

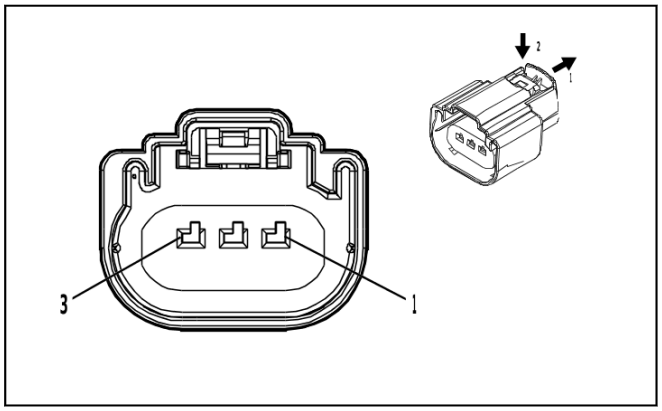
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B133 Brake Booster Fluid Flow Alarm Switch X2 (UJ1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK	350	Ground	I	—

B150 Fuel Tank Pressure Sensor



4589538

Connector Part Information

- Harness Type: Chassis Wiring Harness
- OEM Connector: 160073-3106
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 1.5 MX Series, Sealed(GY)

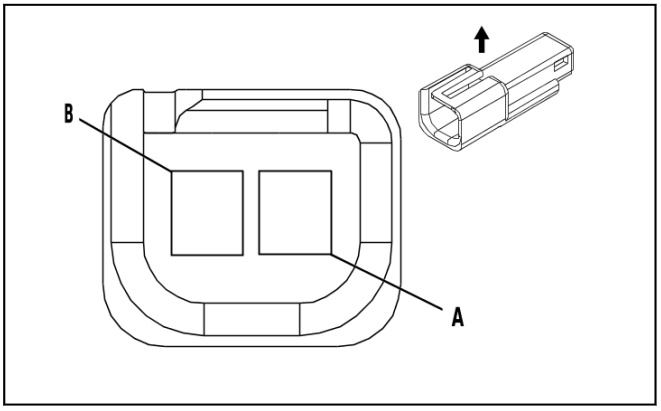
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU / WH	(1) 890	(1) Fuel Tank Pressure Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / BN	(2) 6284	(2) Fuel Tank Pressure Sensor Low Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) YE / RD	(3) 2709	(3) Fuel Tank Pressure Sensor 5V Reference	(3) I	(3) —

B153D Seat Belt Buckle - Driver



35441

Connector Part Information
- Harness Type: Driver Seat
- OEM Connector: 12047663
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 150 Metri-Pack Series(BK)

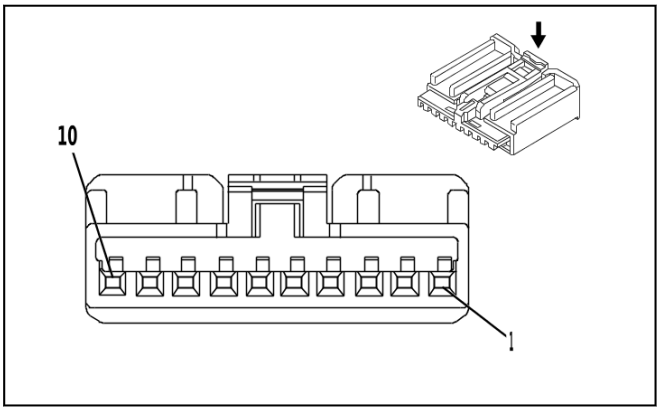
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

B153D Seat Belt Buckle - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	PK	5057	Seat Position Switch Low Reference	I	—
B	—	TN / WH	238	Driver Seat Belt Switch Signal	I	—

B174W Frontview Camera - Windshield



1862241

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: AIT2PB-10-1AK
- Service Connector: 13576634
- Description: 10-Way F 0.64 Kaizen Series(BK)

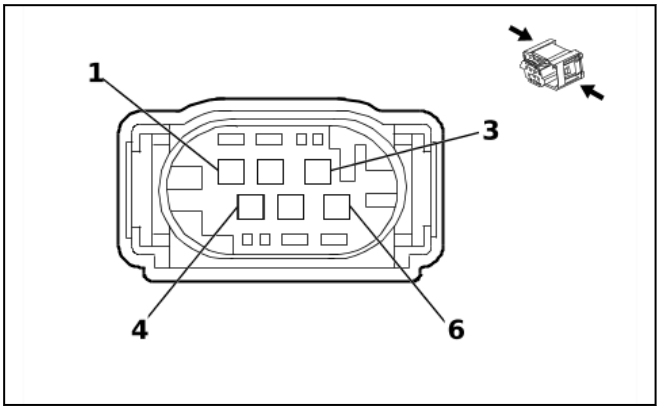
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

B174W Frontview Camera - Windshield

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BK	(1) 1850	(1) Ground	(1) I	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) RD / GN	(3) 3140	(3) Battery Positive Voltage	(3) I	(3) —
(4) 4	(4) 0.5	(4) WH	(4) 3152	(4) Lane Departure Warning Indicator Control	(4) I	(4) —
5 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.5	(7) GN	(7) 5060	(7) Low Speed GMLAN Serial Data	(7) I	(7) —
8 - 9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.5	(10) GY / WH	(10) 3153	(10) Lane Departure Warning Disable Switch Signal	(10) I	(10) —

B176 Multi-axis Acceleration Sensor Module



831393

Connector Part Information

- Harness Type: Body Wiring Harness
- OEM Connector: 1-967616-1
- Service Connector: 15306420
- Description: 6-Way F 0.64 Micro-Quadlock Series, Sealed(BK)

Terminal Part Information

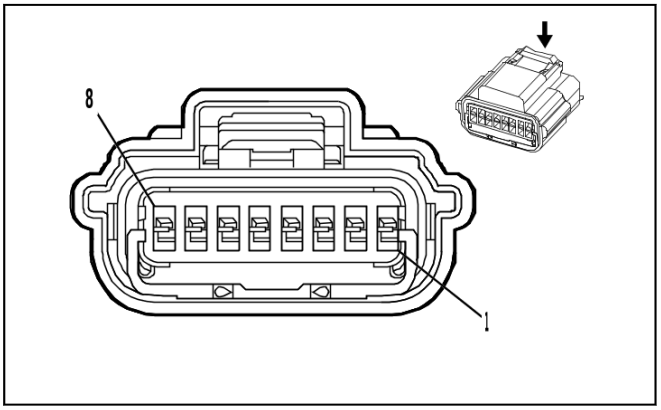
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B176 Multi-axis Acceleration Sensor Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BK / BN	(1) 6045	(1) Steering Angle Sensor Low Reference	(1) I	(1) —
2 - 3	—	—	—	Not Occupied	—	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(4) 4	(4) 0.5	(4) BU / YE	(4) 6105	(4) High Speed GMLAN Serial Data [+] 2	(4) I	(4) —
(5) 5	(5) 0.5	(5) WH	(5) 6106	(5) High Speed GMLAN Serial Data [-] 2	(5) I	(5) —
(6) 6	(6) 0.5	(6) BK / WH	(6) 2751	(6) Signal Ground	(6) I	(6) —

B218L Side Object Sensor Module - Left (UFT)



2581486

Connector Part Information
- Harness Type: Rear Object Alarm Sensor Wiring Harness
- OEM Connector: ATSSPB-C0805G-1AK
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 0.64 Series, Sealed(BK)

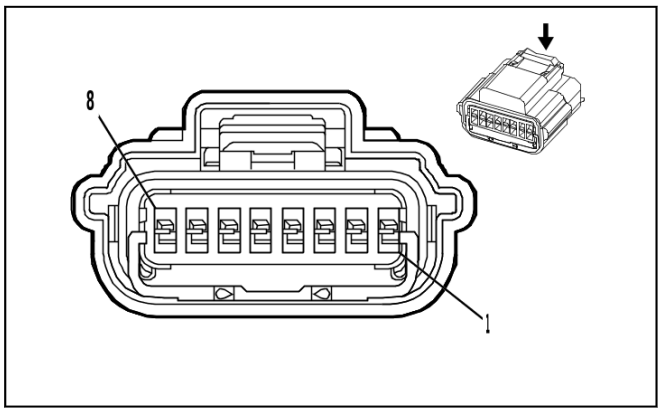
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B218L Side Object Sensor Module - Left (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
(2) 2	(2) 0.5	(2) GN	(2) 5060	(2) Low Speed GMLAN Serial Data	(2) I	(2) —
3	—	—	—	Not Occupied	—	—
(4) 4	(4) 0.5	(4) GY / YE	(4) 5853	(4) Driver Side Side Object Detection LED Signal 1	(4) I	(4) —
(5) 5	(5) 0.5	(5) RD / GN	(5) 3140	(5) Battery Positive Voltage	(5) I	(5) —
6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.5	(7) GN / BK	(7) 5060	(7) Low Speed GMLAN Serial Data	(7) I	(7) —
(8) 8	(8) 0.5	(8) BK	(8) 2150	(8) Ground	(8) I	(8) —

B218R Side Object Sensor Module - Right (UFT)



2581486

Connector Part Information

- Harness Type: Rear Object Alarm Sensor Wiring Harness
- OEM Connector: ATSSPB-C0805H-1AK
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 0.64 Series, Sealed(BK)

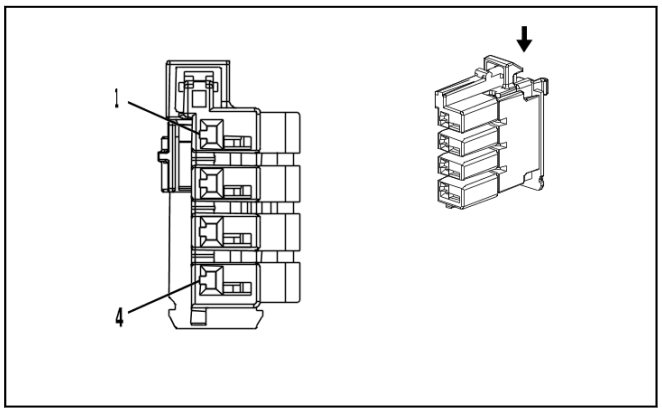
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B218R Side Object Sensor Module - Right (UFT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) BK	(3) 2150	(3) Ground	(3) I	(3) —
(4) 4	(4) 0.5	(4) GY	(4) 5861	(4) Passenger Side Object Detection LED Signal 1	(4) I	(4) —
(5) 5	(5) 0.5	(5) RD / GN	(5) 3140	(5) Battery Positive Voltage	(5) I	(5) —
6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.5	(7) GN / BK	(7) 5060	(7) Low Speed GMLAN Serial Data	(7) I	(7) —
(8) 8	(8) 0.5	(8) BK	(8) 2150	(8) Ground	(8) I	(8) —

B303 Transmission Range Sensor



4364148

Connector Part Information

- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 2289524-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 1.2 MCON Series(BN)

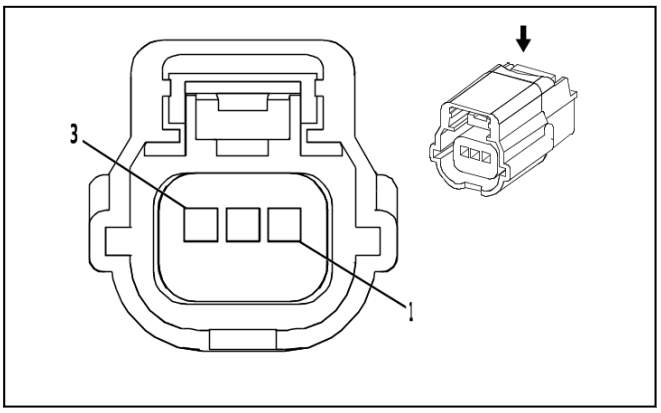
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B303 Transmission Range Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / YE	(1) 3337	(1) Transmission Internal Mode Switch Mode Control Y	(1) I	(1) —
(2) 2	(2) 0.5	(2) WH / RD	(2) 596	(2) 5V Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) BK / GY	(3) 3927	(3) Transmission Internal Mode Switch Feedback Signal	(3) I	(3) —
(4) 4	(4) 0.5	(4) BU / WH	(4) 3338	(4) Transmission Internal Mode Switch Mode Control X	(4) I	(4) —

B306E Parking Assist Sensor - Rear Left Outer (UD7)



1664596

Connector Part Information

- Harness Type: Rear Object Alarm Sensor Wiring Harness
- OEM Connector: 31403-3710
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Series, Sealed(BK)

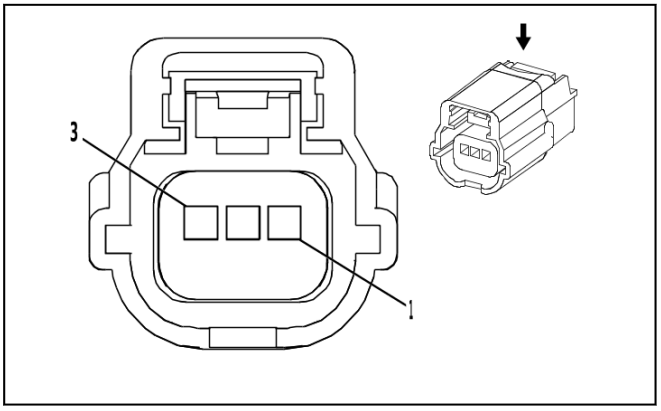
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306E Parking Assist Sensor - Rear Left Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5 (1) 0.5	(1) BU (1) BN / WH	(1) 2374 (1) 2374	(1) Object Sensor Voltage Reference (1) Object Sensor Voltage Reference	(1) I (1) I	(1) UFT (1) - UFT
(2) 2	(2) 0.5 (2) 0.5	(2) GY (2) BK / GY	(2) 2379 (2) 2379	(2) Object Sensor Low Reference (2) Object Sensor Low Reference	(2) I (2) I	(2) UFT (2) - UFT
(3) 3	(3) 0.5	(3) YE	(3) 2375	(3) Left Rear Outer Parking Assist Sensor Signal	(3) I	(3) —

B306F Parking Assist Sensor - Rear Left Middle (UD7)



1664596

Connector Part Information

- Harness Type: Rear Object Alarm Sensor Wiring Harness
- OEM Connector: 31403-3710
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Series, Sealed(BK)

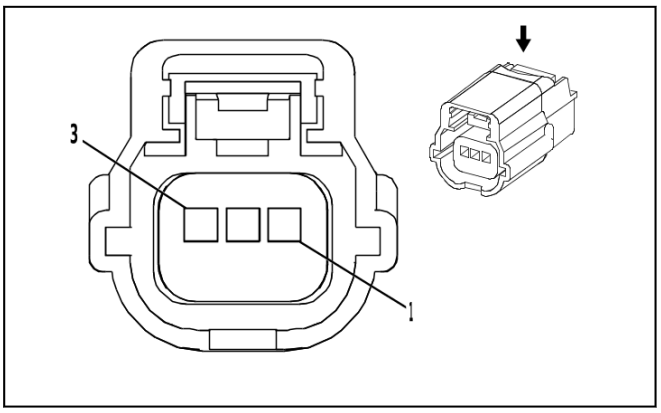
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306F Parking Assist Sensor - Rear Left Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5 (1) 0.5	(1) BU (1) BN / WH	(1) 2374 (1) 2374	(1) Object Sensor Voltage Reference (1) Object Sensor Voltage Reference	(1) I (1) I	(1) UFT (1) - UFT
(2) 2	(2) 0.5 (2) 0.5	(2) GY (2) BK / GY	(2) 2379 (2) 2379	(2) Object Sensor Low Reference (2) Object Sensor Low Reference	(2) I (2) I	(2) UFT (2) - UFT
(3) 3	(3) 0.5 (3) 0.5	(3) OG (3) YE / BU	(3) 2376 (3) 2376	(3) Left Rear Middle Parking Assist Sensor Signal (3) Left Rear Middle Parking Assist Sensor Signal	(3) I (3) I	(3) UFT (3) - UFT

B306G Parking Assist Sensor - Rear Right Middle (UD7)



1664596

Connector Part Information

- Harness Type: Rear Object Alarm Sensor Wiring Harness
- OEM Connector: 31403-3710
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Series, Sealed(BK)

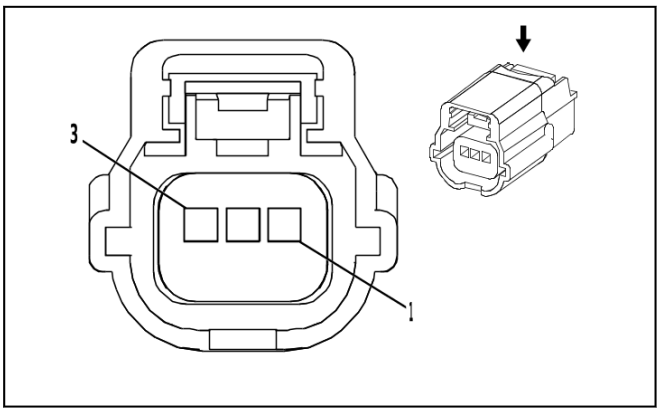
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306G Parking Assist Sensor - Rear Right Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5 (1) 0.5	(1) BU (1) BN / WH	(1) 2374 (1) 2374	(1) Object Sensor Voltage Reference (1) Object Sensor Voltage Reference	(1) I (1) I	(1) UFT (1) - UFT
(2) 2	(2) 0.5 (2) 0.5	(2) GY (2) BK / GY	(2) 2379 (2) 2379	(2) Object Sensor Low Reference (2) Object Sensor Low Reference	(2) I (2) I	(2) UFT (2) - UFT
(3) 3	(3) 0.5 (3) 0.5	(3) GN (3) YE / WH	(3) 2377 (3) 2377	(3) Right Rear Middle Parking Assist Sensor Signal (3) Right Rear Middle Parking Assist Sensor Signal	(3) I (3) I	(3) UFT (3) - UFT

B306H Parking Assist Sensor - Rear Right Outer (UD7)



1664596

Connector Part Information

- Harness Type: Rear Object Alarm Sensor Wiring Harness
- OEM Connector: 31403-3710
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F 0.64 Series, Sealed(BK)

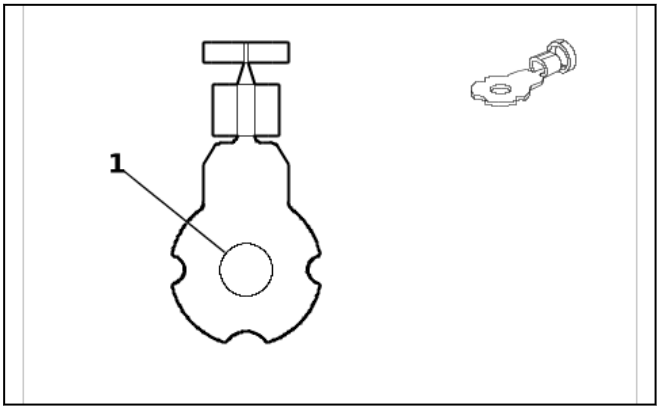
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B306H Parking Assist Sensor - Rear Right Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5 (1) 0.5	(1) BU (1) BN / WH	(1) 2374 (1) 2374	(1) Object Sensor Voltage Reference (1) Object Sensor Voltage Reference	(1) I (1) I	(1) UFT (1) - UFT
(2) 2	(2) 0.5 (2) 0.5	(2) GY (2) BK / GY	(2) 2379 (2) 2379	(2) Object Sensor Low Reference (2) Object Sensor Low Reference	(2) I (2) I	(2) UFT (2) - UFT
(3) 3	(3) 0.5 (3) 0.5	(3) VT (3) YE / VT	(3) 2378 (3) 2378	(3) Right Rear Outer Parking Assist Sensor Signal (3) Right Rear Outer Parking Assist Sensor Signal	(3) I (3) I	(3) UFT (3) - UFT

C1 Battery - Negative



5693569

Connector Part Information
- Harness Type: Battery Negative Cable
- OEM Connector: 12177185
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

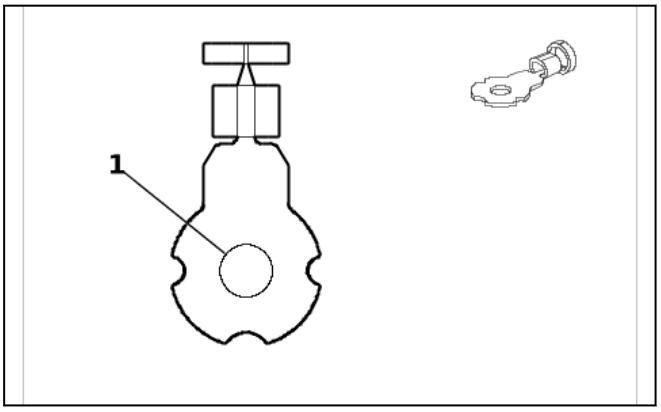
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1 Battery - Negative

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 19 (1) 32	(1) BK (1) BK	(1) 50 (1) 50	(1) Ground (1) Ground	(1) I	(1) — (1) —

C1 Battery - Positive



5693569

Connector Part Information
- Harness Type: Battery Positive Cable
- OEM Connector: 12177185
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

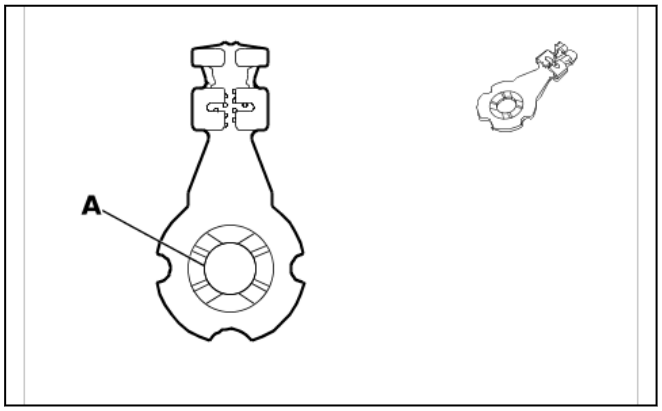
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1 Battery - Positive

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 32 (1) 8	(1) RD (1) RD / BK	(1) 1 (1) 1	(1) Unfused Battery Positive Voltage (1) Unfused Battery Positive Voltage	(1) I	(1) — (1) —

C1B Battery - Auxiliary X1 (TP3)



6056264

Connector Part Information
- Harness Type: Auxiliary Battery Positive Cable
- OEM Connector: 12146464
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

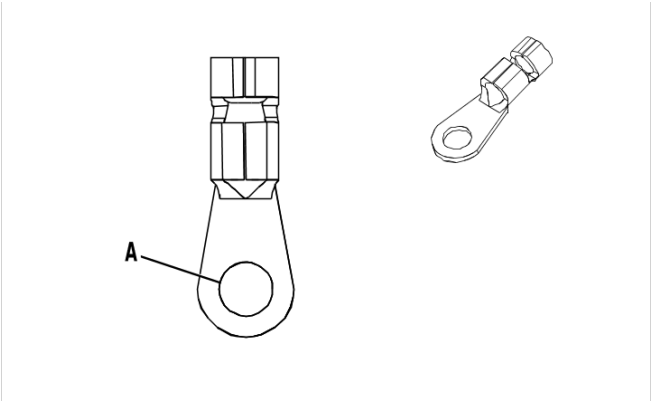
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1B Battery - Auxiliary X1 (TP3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

C1B Battery - Auxiliary X2 (TP3)



2268698

Connector Part Information
- Harness Type: Auxiliary Battery Negative Cable
- OEM Connector: 12146466
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

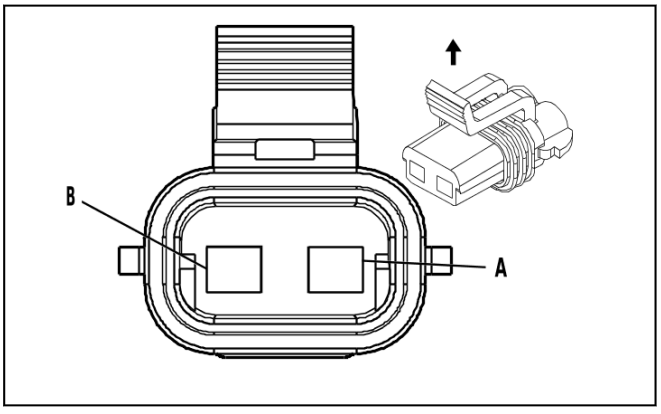
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

C1B Battery - Auxiliary X2 (TP3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Ring Terminal	—	Ground	I	—

E2LF Side Marker Lamp - Left Front



68721

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 15300027
- Service Connector: 12101855
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

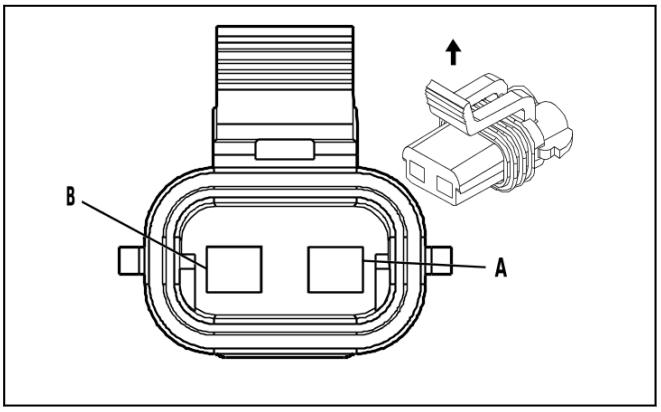
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E2LF Side Marker Lamp - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY / BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	250	Ground	I	—

E2RF Side Marker Lamp - Right Front



68721

Connector Part Information

- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 15300027
- Service Connector: 12101855
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

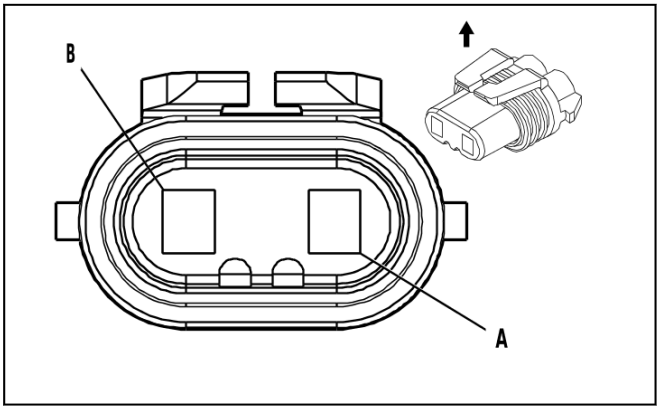
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E2RF Side Marker Lamp - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY / BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	650	Ground	I	—

E4E Headlamp - Left High Beam



684797

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12059183
- Service Connector: 12101898
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

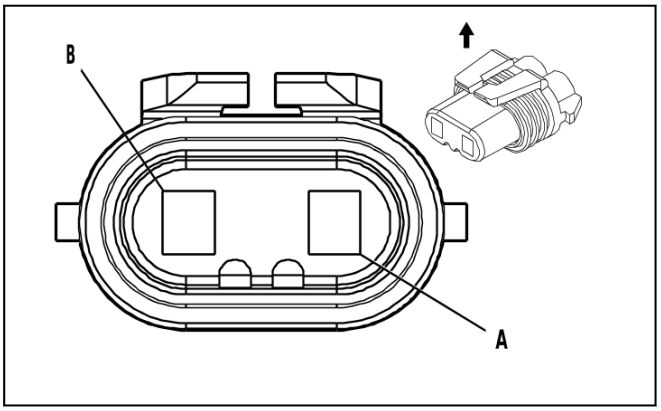
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4E Headlamp - Left High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	711	Left Headlamp High Beam Control	I	—
B	0.75	BK	250	Ground	I	—

E4F Headlamp - Right High Beam



684797

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12059183
- Service Connector: 12101898
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

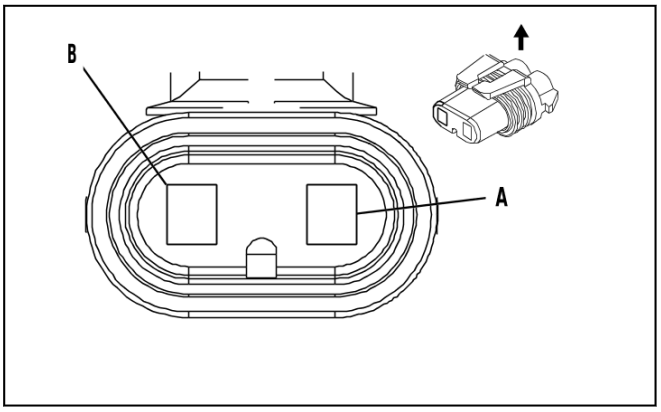
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4F Headlamp - Right High Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	311	Right Headlamp High Beam Control	I	—
B	0.75	BK	650	Ground	I	—

E4G Headlamp - Left Low Beam



684796

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12059181
- Service Connector: 19301866
- Description: 2-Way F 280 Metri-Pack Series, Sealed(GY)

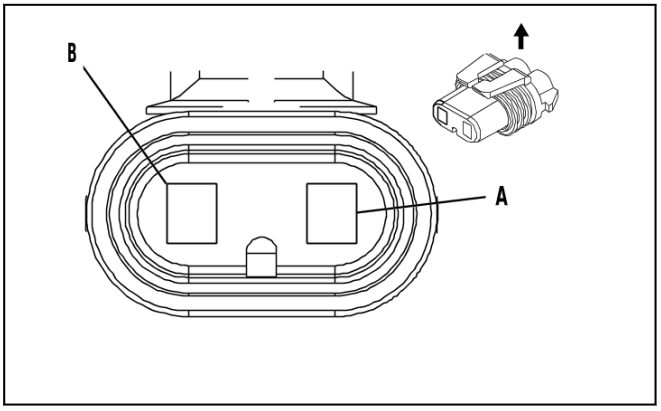
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4G Headlamp - Left Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	712	Left Headlamp Low Beam Control	I	—
B	0.75	BK	250	Ground	I	—

E4H Headlamp - Right Low Beam



684796

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12059181
- Service Connector: 19301866
- Description: 2-Way F 280 Metri-Pack Series, Sealed(GY)

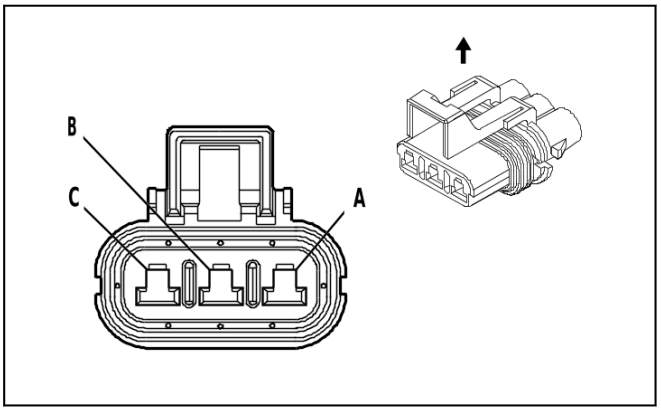
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4H Headlamp - Right Low Beam

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	YE	312	Right Headlamp Low Beam Control	I	—
B	0.75	BK	650	Ground	I	—

E4N Park/Turn Signal Lamp - Left



847206

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12040977
- Service Connector: 12085492
- Description: 3-Way F 280 Metri-Pack Series, Sealed(BK)

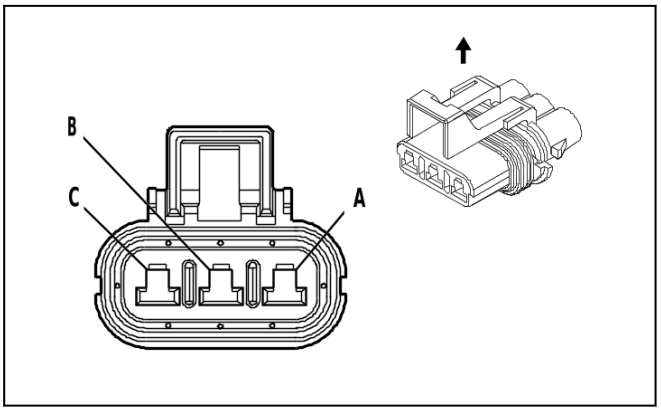
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4N Park/Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
B	0.5	GY / BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	250	Ground	I	—

E4P Park/Turn Signal Lamp - Right



847206

Connector Part Information

- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12040977
- Service Connector: 12085492
- Description: 3-Way F 280 Metri-Pack Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E4P Park/Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	GN / VT	1315	Right Front Turn Signal Lamp Control	I	—
B	0.5	GY / BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	650	Ground	I	—

E5A Backup Lamp - Left

—

Connector Part Information
- Harness Type: Tail Lamp Wiring Harness
- OEM Connector: EEM0274
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way Lamp Socket

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
I	Not required	No Tool Required	No Tool Required

E5A Backup Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	18	GN	24	Backup Lamp Control	I	—
G	—	BK	850	Ground	I	—

E5B Backup Lamp - Right

—

Connector Part Information
- Harness Type: Tail Lamp Wiring Harness
- OEM Connector: EEM0274
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E5B Backup Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	GN	24	Backup Lamp Control	I	—
G	—	BK	1050	Ground	I	—

E5S Tail/Stop and Turn Signal Lamp - Left

—

Connector Part Information
- Harness Type: Tail Lamp Wiring Harness
- OEM Connector: EEM0275
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way Lamp Socket

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
I	Not required	No Tool Required	No Tool Required

E5S Tail/Stop and Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	18	BN	2509	Left Rear Park Lamp Control	I	—
B	18	YE	618	Left Rear Turn Signal Lamp Control	I	—
G	—	BK	850	Ground	I	—

E5T Tail/Stop and Turn Signal Lamp - Right

—

Connector Part Information
- Harness Type: Tail Lamp Wiring Harness
- OEM Connector: EEM0275
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way

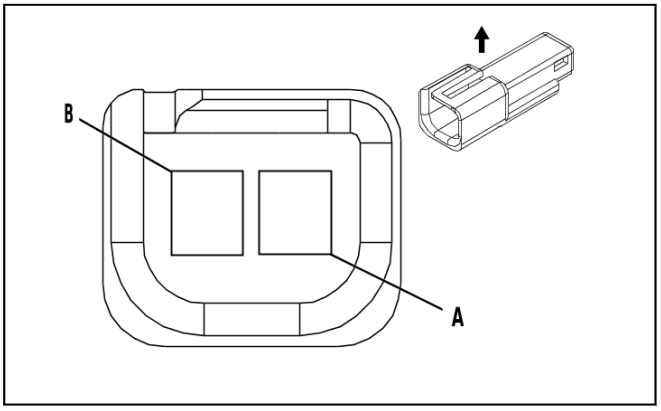
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E5T Tail/Stop and Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BN	2609	Right Rear Park Lamp Control	I	PASSENGER/ CARGO
B	—	GN	619	Right Rear Turn Signal Lamp Control	I	—
G	—	BK	1050	Ground	I	—

E6 Center High Mounted Stop Lamp



35441

Connector Part Information
- Harness Type: Center High Mounted Stop Lamp
- OEM Connector: 12047663
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 150 Metri-Pack Series(BK)

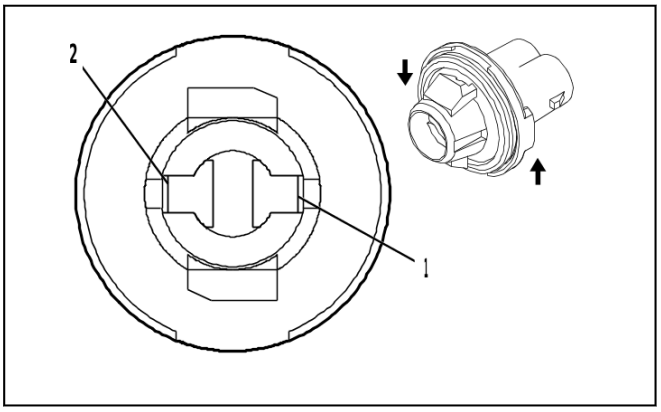
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-3 (GY)	No Tool Required

E6 Center High Mounted Stop Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	1320	Center High Mounted Stop Lamp Control 2	I	—
B	—	BK	850	Ground	I	—

E7 License Plate Lamp



5153536

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 15324946
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F Lamp Socket Wedge Base, Type W-2(D-GY)

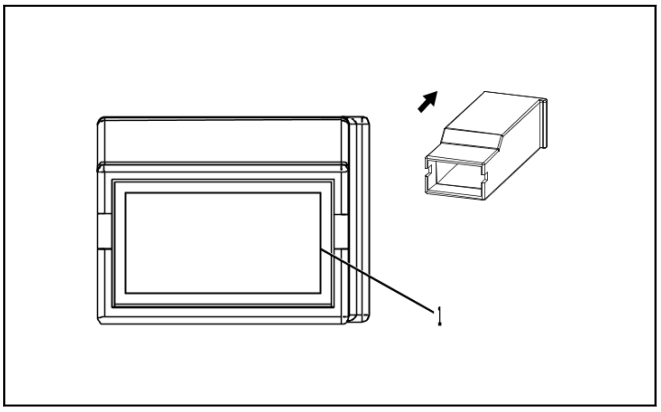
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E7 License Plate Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN	(1) 2509	(1) Left Rear Park Lamp Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK	(2) 1050	(2) Ground	(2) I	(2) —

E18L Rear Defogger Grid - Left X1 (C49)



2500421

Connector Part Information
- Harness Type: Rear Window Defogger Wiring Harness
- OEM Connector: 12103107
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 6.3 Positive Lock Series(BK)

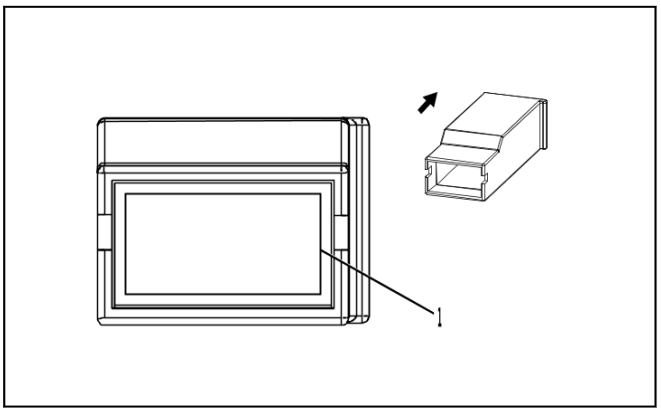
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X1 (C49)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 5	(1) PU	(1) 293	(1) Rear Defogger Grid Control	(1) I	(1) —

E18L Rear Defogger Grid - Left X2 (C49)



2500421

Connector Part Information
- Harness Type: Rear Window Defogger Wiring Harness
- OEM Connector: 12103107
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 6.3 Positive Lock Series(BK)

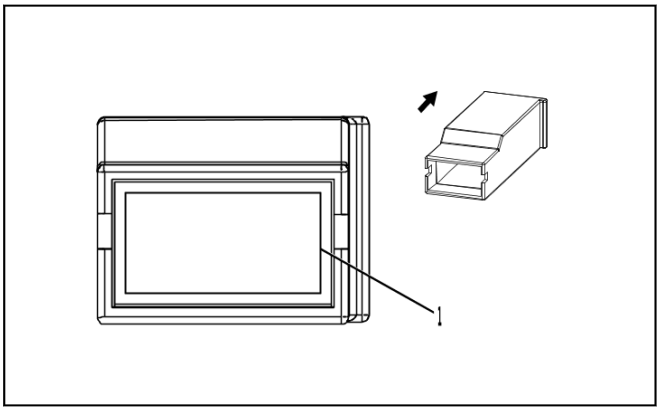
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18L Rear Defogger Grid - Left X2 (C49)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 3	(1) BK	(1) 850	(1) Ground	(1) I	(1) —

E18R Rear Defogger Grid - Right X1 (C49)



2500421

Connector Part Information
- Harness Type: Rear Window Defogger Wiring Harness
- OEM Connector: 12103107
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 6.3 Positive Lock Series(BK)

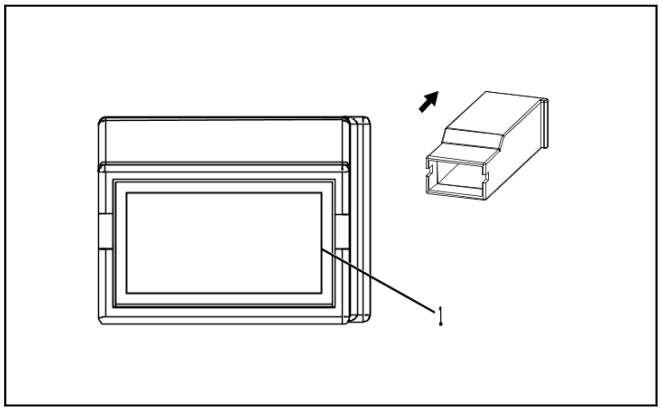
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X1 (C49)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 5	(1) PU	(1) 293	(1) Rear Defogger Grid Control	(1) I	(1) —

E18R Rear Defogger Grid - Right X2 (C49)



2500421

Connector Part Information

- Harness Type: Rear Window Defogger Wiring Harness
- OEM Connector: 12103107
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 6.3 Positive Lock Series(BK)

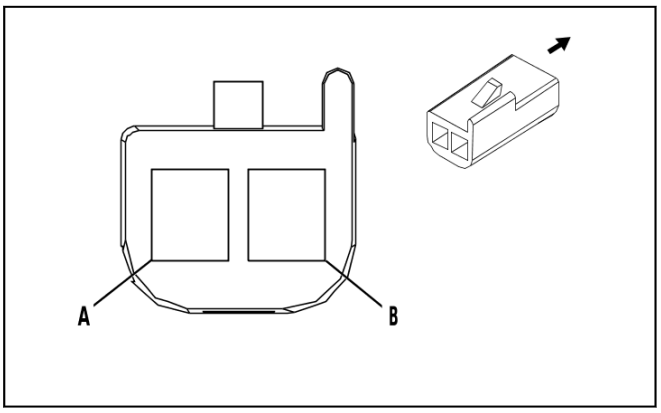
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18R Rear Defogger Grid - Right X2 (C49)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 3	(1) BK	(1) 1050	(1) Ground	(1) I	(1) —

E36AC Dome Lamp - Left Roof Rail - Cargo



82383

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12047662
- Service Connector: 12085535
- Description: 2-Way F 150 Metri-Pack Series(BK)

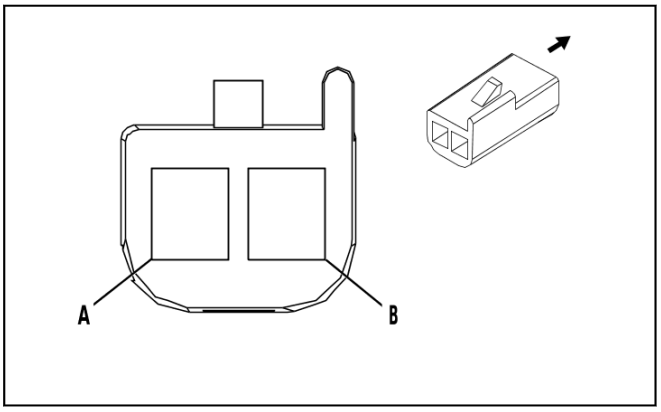
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E36AC Dome Lamp - Left Roof Rail - Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E36AD Dome Lamp - Right Roof Rail - Cargo



82383

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12047662
- Service Connector: 12085535
- Description: 2-Way F 150 Metri-Pack Series(BK)

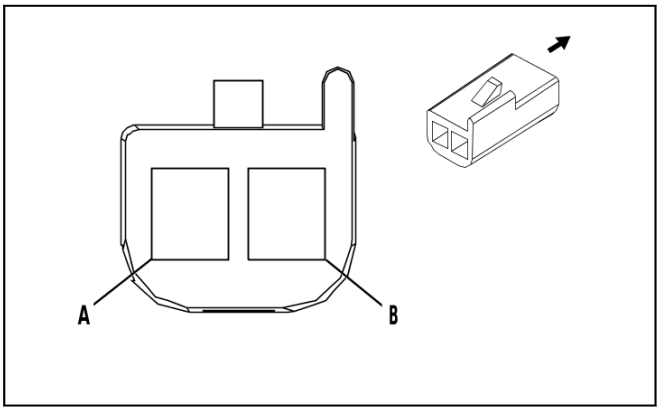
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E36AD Dome Lamp - Right Roof Rail - Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E36AH Dome Lamp - Cargo



82383

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12047662
- Service Connector: 12085535
- Description: 2-Way F 150 Metri-Pack Series(BK)

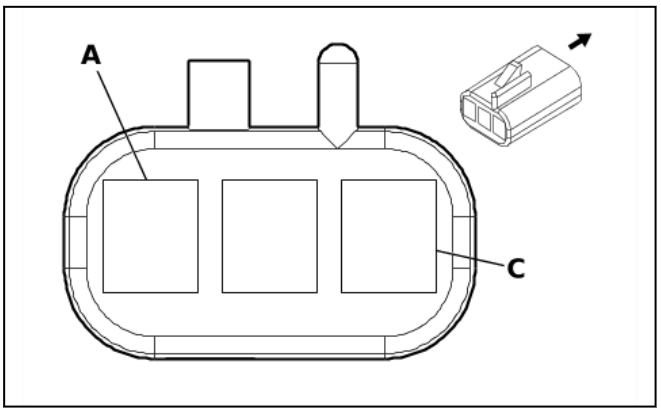
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E36AH Dome Lamp - Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E37F Dome/Reading Lamps - Front - Passenger



333035

Connector Part Information

- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12047781
- Service Connector: 13586139
- Description: 3-Way F 150 Metri-Pack Series(BK)

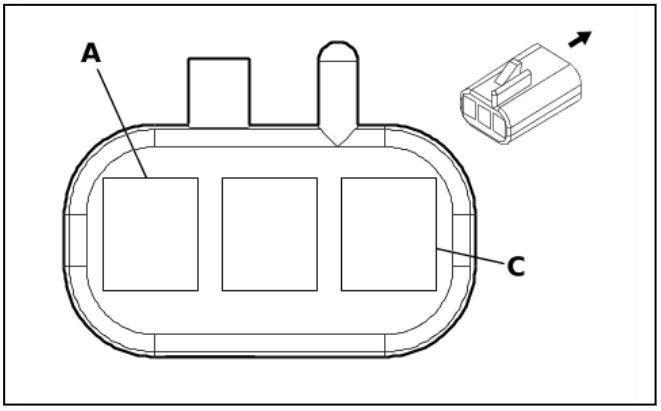
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E37F Dome/Reading Lamps - Front - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU / WH	149	Courtesy Lamp Control	I	—
B	0.8 1	BK BK	1850 1850	Ground Ground	I I	- DH6 DH6
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E37M Dome/Reading Lamps - Middle - Passenger



333035

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12047781
- Service Connector: 13586139
- Description: 3-Way F 150 Metri-Pack Series(BK)

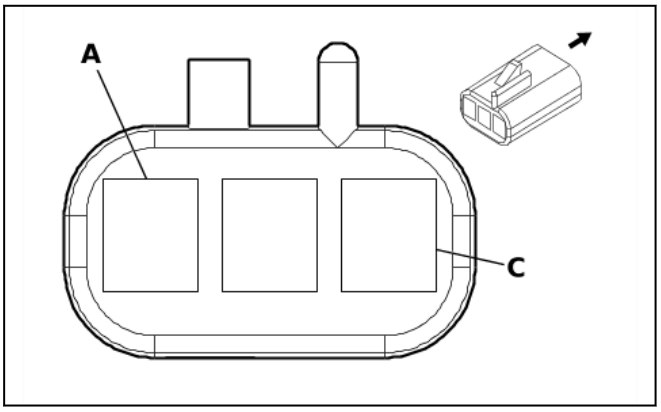
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E37M Dome/Reading Lamps - Middle - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground	I	—
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

E37R Dome/Reading Lamps - Rear - Passenger



333035

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12047781
- Service Connector: 13586139
- Description: 3-Way F 150 Metri-Pack Series(BK)

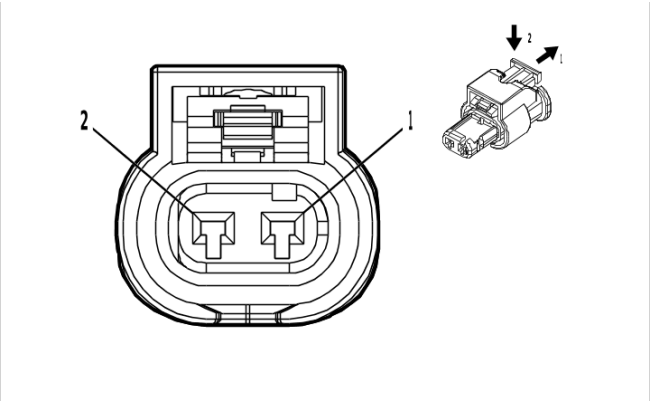
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E37R Dome/Reading Lamps - Rear - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU / WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground	I	—
C	0.8	OG	1732	Control Module 12V Reference 3	I	—

F101 Passenger Instrument Panel Air Bag



2698576

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 1-1823608-4
- Service Connector: 19369032
- Description: 2-Way F 1.2 MCON Series, Sealed(YE)

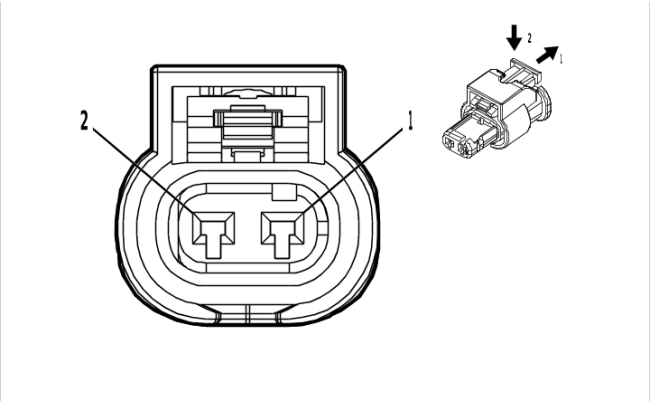
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F101 Passenger Instrument Panel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) YE	(1) 3025	(1) Passenger Instrument Panel Air Bag Stage 1 High Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) OG	(2) 3024	(2) Passenger Instrument Panel Air Bag Stage 1 Low Control	(2) I	(2) —

F105LF Roof Rail Air Bag - Left Front (ASF)



2698576

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 1-1823608-4
- Service Connector: 19369032
- Description: 2-Way F 1.2 MCON Series, Sealed(YE)

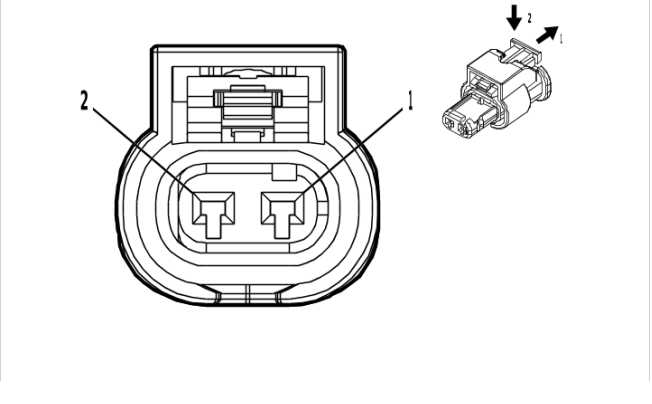
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F105LF Roof Rail Air Bag - Left Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) PK	(1) 5020	(1) Left Front Roof Rail Air Bag Low Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) PU / WH	(2) 5019	(2) Left Front Roof Rail Air Bag High Control	(2) I	(2) —

F105RF Roof Rail Air Bag - Right Front (ASF)



2698576

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 1-1823608-4
- Service Connector: 19369032
- Description: 2-Way F 1.2 MCON Series, Sealed(YE)

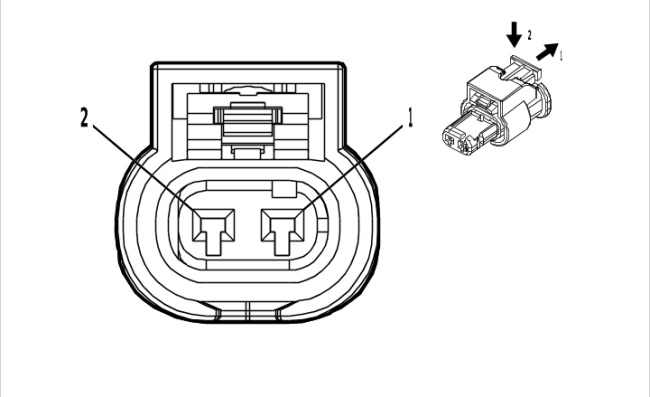
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F105RF Roof Rail Air Bag - Right Front (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH / BK	(1) 5022	(1) Right Front Roof Rail Air Bag Low Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) YE / BK	(2) 5021	(2) Right Front Roof Rail Air Bag High Control	(2) I	(2) —

F105RR Roof Rail Air Bag - Right Rear (ASF)



2698576

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 1-1823608-4
- Service Connector: 19369032
- Description: 2-Way F 1.2 MCON Series, Sealed(YE)

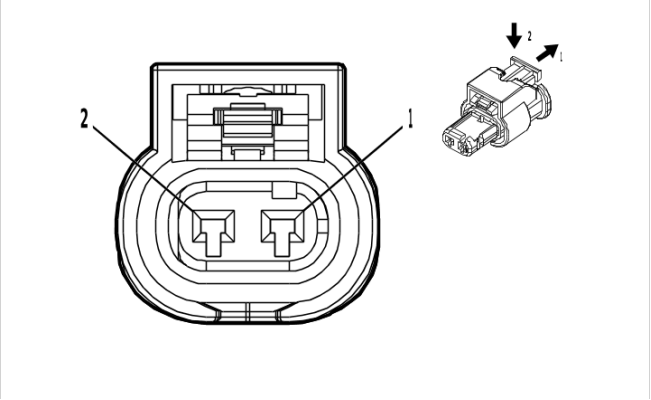
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F105RR Roof Rail Air Bag - Right Rear (ASF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) TN / BK	(1) 7016	(1) Right Rear Roof Rail Air Bag Low Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU	(2) 7015	(2) Right Rear Roof Rail Air Bag High Control	(2) I	(2) —

F106D Seat Side Air Bag - Driver (AK5)



2698576

Connector Part Information
- Harness Type: Driver Seat Air Bag Jumper
- OEM Connector: 13580144
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series, Sealed(YE)

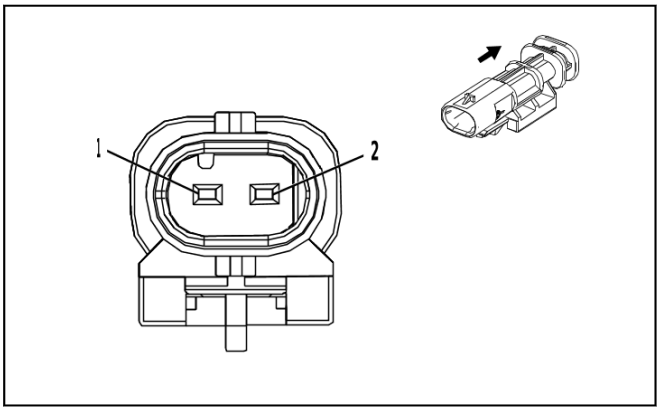
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

F106D Seat Side Air Bag - Driver (AK5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) BN	(1) 2137	(1) Left Front Seat Side Air Bag High Control	(1) I	(1) —
(2) 2	(2) —	(2) YE / BK	(2) 2138	(2) Left Front Seat Side Air Bag Low Control	(2) I	(2) —

F106P Seat Side Air Bag - Passenger (AK5)



2474755

Connector Part Information
- Harness Type: Passenger Seat Air Bag Jumper
- OEM Connector: 13580142
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 MCON Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required

F106P Seat Side Air Bag - Passenger (AK5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) TN / WH	(1) 2135	(1) Right Front Seat Side Air Bag High Control	(1) I	(1) —
(2) 2	(2) —	(2) GN	(2) 2136	(2) Right Front Seat Side Air Bag Low Control	(2) I	(2) —

F107 Steering Wheel Air Bag

—

Connector Part Information
- Harness Type: Steering Wheel Air Bag
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way

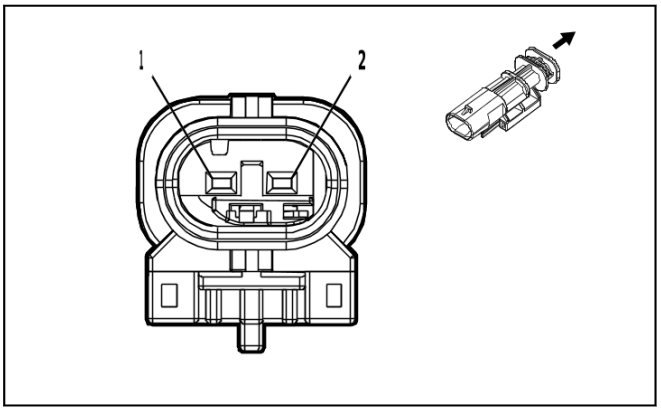
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F107 Steering Wheel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) TN	(1) 3021	(1) Steering Wheel Air Bag Stage 1 High Control	(1) I	(1) —
(2) 2	(2) —	(2) BN	(2) 3020	(2) Steering Wheel Air Bag Stage 1 Low Control	(2) I	(2) —

F109D Seat Belt Buckle Pretensioner - Driver



4569729

Connector Part Information
- Harness Type: Driver Seat Pretensioner Jumper
- OEM Connector: 13581182
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 MCON Series, Sealed(YE)

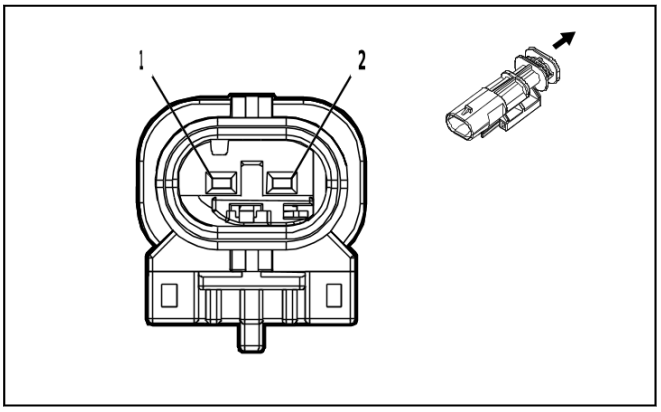
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required

F109D Seat Belt Buckle Pretensioner - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) TN / WH	(1) 2118	(1) Driver Seat Belt Pretensioner High Control	(1) I	(1) —
(2) 2	(2) —	(2) OG / BK	(2) 2119	(2) Driver Seat Belt Pretensioner Low Control	(2) I	(2) —

F109P Seat Belt Buckle Pretensioner - Passenger (AK5)



4569729

Connector Part Information

- Harness Type: Passenger Seat Pretensioner Jumper
- OEM Connector: 13581182
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 MCON Series, Sealed(YE)

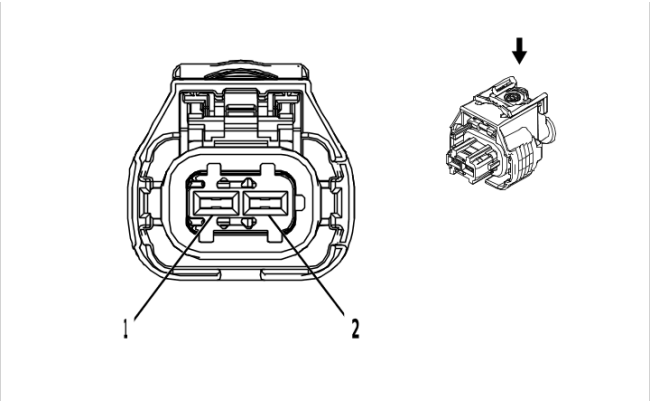
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required

F109P Seat Belt Buckle Pretensioner - Passenger (AK5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) GN	(1) 2116	(1) Passenger Seat Belt Pretensioner High Control	(1) I	(1) —
(2) 2	(2) —	(2) OG	(2) 2117	(2) Passenger Seat Belt Pretensioner Low Control	(2) I	(2) —

G13 Generator X1 (L8T)



2577394

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 1 928 405 714
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed(BK)

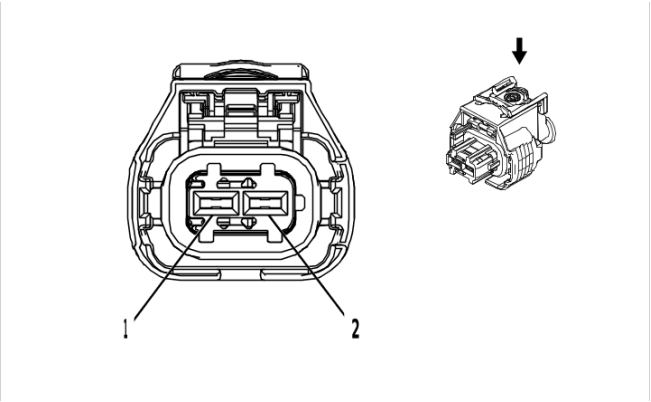
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G13 Generator X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN	(1) 25	(1) Charge Indicator Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY	(2) 23	(2) Generator Field Duty Cycle Signal	(2) I	(2) —

G13 Generator X1 (LV1)



2577394

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 1 928 405 714
- Service Connector: 13384371
- Description: 2-Way F 2.8 Series, Sealed(BK)

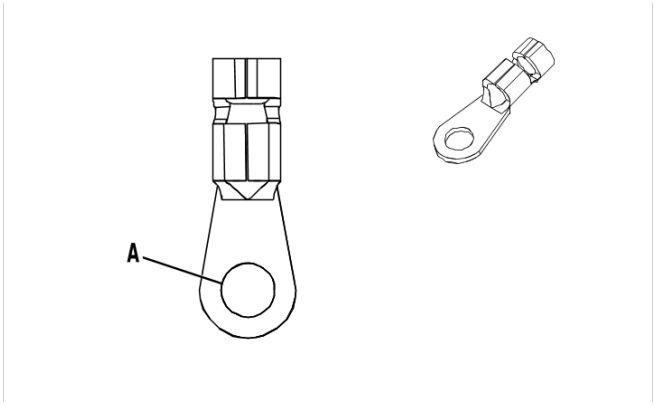
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G13 Generator X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN	(1) 25	(1) Charge Indicator Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY	(2) 23	(2) Generator Field Duty Cycle Signal	(2) I	(2) —

G13 Generator X2 (K68)



2268698

Connector Part Information

- Harness Type: Battery Positive Cable
- OEM Connector: 12129598
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

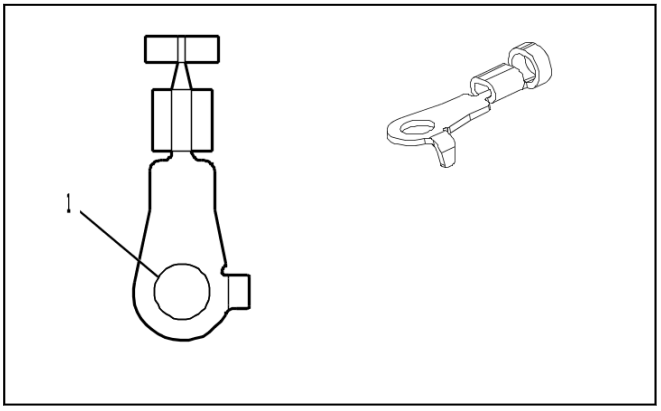
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2 (K68)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (KG4)



4833656

Connector Part Information
- Harness Type: Battery Positive Cable
- OEM Connector: 15544794
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

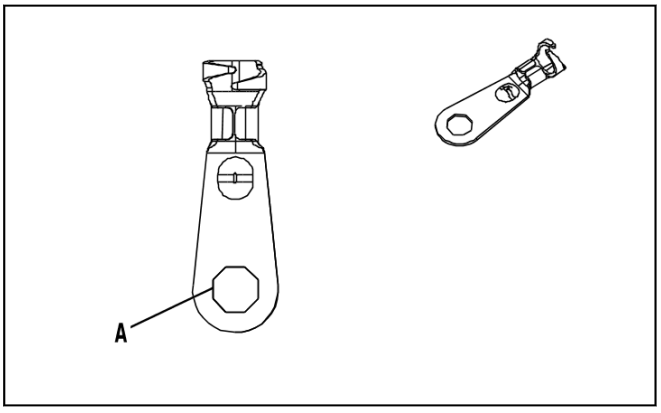
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2 (KG4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 25	(1) RD	(1) 1	(1) Unfused Battery Positive Voltage	(1) I	(1) —

G13 Generator X2 (KW5)



3214043

Connector Part Information
- Harness Type: Battery Positive Cable
- OEM Connector: 33257772
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

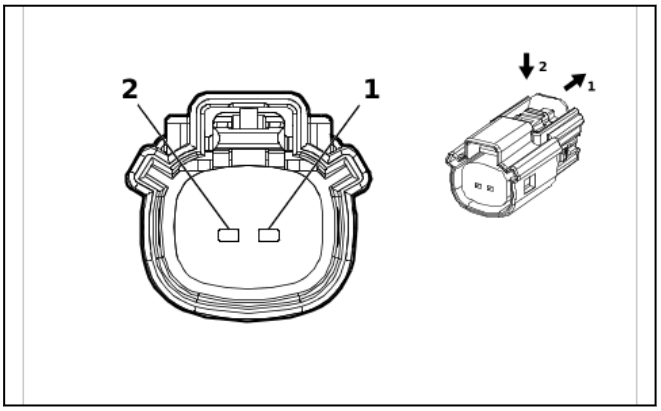
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2 (KW5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD	1	Unfused Battery Positive Voltage	I	—

G18 High Pressure Fuel Pump



2474713

Connector Part Information

- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 33471-0206
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

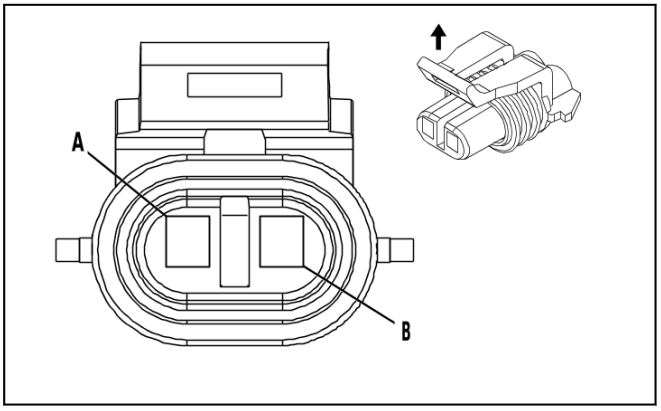
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

G18 High Pressure Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) VT / BK	(1) 7300	(1) High Pressure Fuel Pump Low Control	(1) I	(1) —
(2) 2	(2) 0.75	(2) YE	(2) 7301	(2) High Pressure Fuel Pump High Control	(2) I	(2) —

G24 Windshield Washer Pump



635009

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12052641
- Service Connector: 13586114
- Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

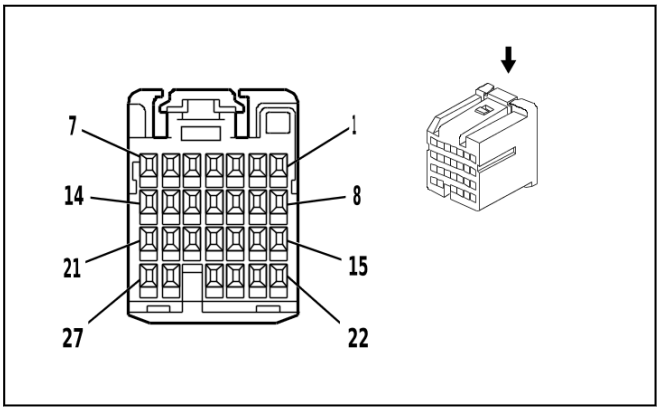
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	228	Windshield Washer Pump Control	I	—
B	0.5	BK	350	Ground	I	—

K9 Body Control Module X1



1664495

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HITPB-27-A-LM
- Service Connector: 88988838
- Description: 27-Way F HIT Series(L-GN)

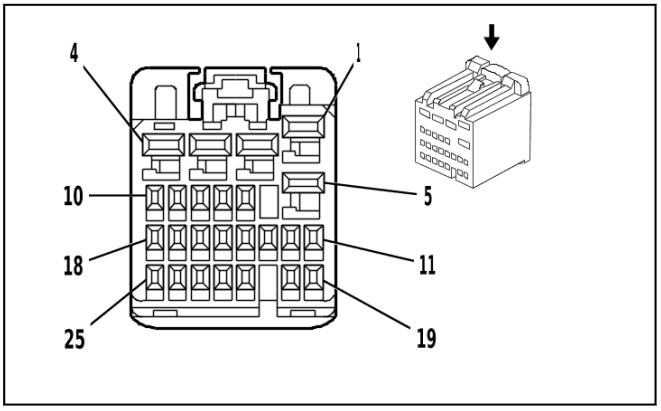
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A

K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
(2) 2	(2) 0.35	(2) PK	(2) 1020	(2) Off/Run/Crank Ignition Voltage	(2) I	(2) —
(3) 3	(3) 0.35	(3) GY	(3) 1884	(3) Cruise Control Set/Coast/Resume/Accelerate Switch Signal	(3) I	(3) —
(4) 4	(4) 0.35	(4) WH	(4) 530	(4) Off/Run/Crank Ignition Voltage	(4) I	(4) —
(5) 5	(5) 0.35	(5) GN	(5) 1715	(5) Windshield Wiper Switch High Signal	(5) I	(5) —
(6) 6	(6) 0.35	(6) GN	(6) 6818	(6) Steering Wheel Controls Signal 1	(6) I	(6) —
7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.35	(8) TN / BK	(8) 6009	(8) Windshield Wiper Switch Low Reference	(8) I	(8) —
(9) 9	(9) 0.35	(9) BU	(9) 1714	(9) Windshield Wiper Switch Low Signal	(9) I	(9) —
10 - 13	—	—	—	Not Occupied	—	—
(14) 14	(14) 0.35	(14) PK	(14) 3	(14) Run/Crank Ignition 1 Voltage	(14) I	(14) —
(15) 15	(15) 0.35	(15) GN	(15) 663	(15) Hazard Switch Left Turn Signal	(15) I	(15) —
(16) 16	(16) 0.35	(16) TN	(16) 664	(16) Hazard Switch Right Turn Signal	(16) I	(16) —
(17) 17	(17) 0.35	(17) PK	(17) 1444	(17) 12V Reference	(17) I	(17) —
(18) 18	(18) 0.35	(18) YE	(18) 525	(18) High Beam Select Switch Low Beam Signal	(18) I	(18) —
(19) 19	(19) 0.35	(19) WH	(19) 111	(19) Hazard Warning Switch Signal	(19) I	(19) —
(20) 20	(20) 0.35	(20) PU	(20) 5526	(20) Tap Up/Tap Down Switch Signal	(20) I	(20) —
(21) 21	(21) 0.35	(21) BN	(21) 4	(21) Accessory Ignition Voltage	(21) I	(21) —
22	—	—	—	Not Occupied	—	—
(23) 23	(23) 0.35	(23) BU	(23) 1788	(23) Traction Control Switch Signal 1	(23) I	(23) —
(24) 24	(24) 0.35	(24) PK	(24) 94	(24) Windshield Washer Switch Signal	(24) I	(24) —
(25) 25	(25) 0.35	(25) YE	(25) 307	(25) Headlamp Switch Flash Signal	(25) I	(25) —
(26) 26	(26) 0.5	(26) TN / WH	(26) 816	(26) Brake Transmission Shift Interlock Solenoid Actuator Control	(26) I	(26) —
27	—	—	—	Not Occupied	—	—

K9 Body Control Module X2



1664496

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HITPB-25-B-S
- Service Connector: 88988839
- Description: 25-Way F HIT Series(NA)

Terminal Part Information

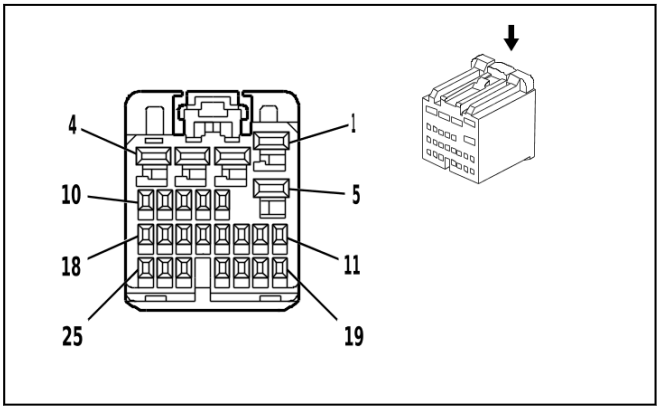
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.8	(1) OG	(1) 1732	(1) Control Module 12V Reference 3	(1) II	(1) —
(2) 2	(2) 0.5	(2) RD / WH	(2) 2540	(2) Battery Positive Voltage	(2) II	(2) —
(3) 3	(3) 0.5	(3) BN / WH	(3) 230	(3) Instrument Panel Lamp Dimming Control	(3) II	(3) —
4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.8	(5) BU / WH	(5) 149	(5) Courtesy Lamp Control	(5) II	(5) —
6 - 7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.35	(8) BU	(8) 13	(8) Headlamp Switch Park Lamp Signal	(8) I	(8) —
9 - 10	—	—	—	Not Occupied	—	—
(11) 11	(11) 0.35	(11) WH	(11) 278	(11) Ambient Light Sensor Signal	(11) I	(11) —
(12) 12	(12) 0.35	(12) WH	(12) 103	(12) Headlamp Switch On Signal	(12) I	(12) —
13 - 16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.35	(17) GN	(17) 306	(17) Headlamp Switch Off Signal	(17) I	(17) —
(18) 18	(18) 0.35	(18) BU / WH	(18) 149	(18) Courtesy Lamp Control	(18) I	(18) —
19 - 20	—	—	—	Not Occupied	—	—
(21) 21	(21) 0.5	(21) BU	(21) 6727	(21) Vehicle Stability Control Switch Signal	(21) I	(21) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(22) 22	(22) 0.35	(22) BU	(22) 38	(22) Backup Lamp Relay Control	(22) I	(22) —
23 - 24	—	—	—	Not Occupied	—	—
(25) 25	(25) 0.35	(25) PU	(25) 328	(25) Interior Lamp Defeat Switch Signal	(25) I	(25) —

K9 Body Control Module X3



1664498

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HITPB-25-C-LE
- Service Connector: 88988840
- Description: 25-Way F HIT Series(L-BU)

Terminal Part Information

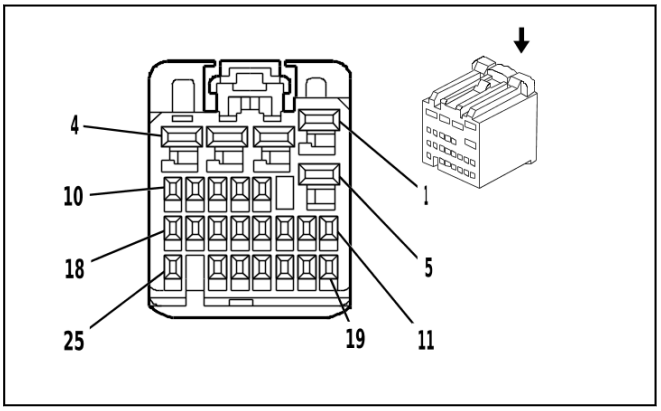
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.8	(1) BK / WH	(1) 351	(1) Signal Ground	(1) II	(1) —
(2) 2	(2) 0.8	(2) RD / WH	(2) 2140	(2) Battery Positive Voltage	(2) II	(2) —
(3) 3	(3) 0.5	(3) RD / WH	(3) 3840	(3) Battery Positive Voltage	(3) II	(3) —
4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.8	(5) BK / WH	(5) 351	(5) Signal Ground	(5) II	(5) —
6 - 7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.5	(8) BU	(8) 2500	(8) High Speed GMLAN Serial Data [+] 1	(8) I	(8) —
(9) 9	(9) 0.5	(9) WH	(9) 2501	(9) High Speed GMLAN Serial Data [-] 1	(9) I	(9) —
(10) 10	(10) 0.35	(10) GN	(10) 5060	(10) Low Speed GMLAN Serial Data	(10) I	(10) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(11) 11	(11) 0.35	(11) GN	(11) 44	(11) Instrument Panel Lamp Dimmer Switch Signal	(11) I	(11) —
(12) 12	(12) 0.35	(12) OG / WH	(12) 812	(12) 12V Reference	(12) I	(12) —
(13) 13	(13) 0.5	(13) TN	(13) 5380	(13) Brake Position Sensor Signal	(13) I	(13) —
(14) 14	(14) 0.5	(14) BN / WH	(14) 5382	(14) Brake Position Sensor Low Reference	(14) I	(14) —
(15) 15	(15) 0.5	(15) GY	(15) 5381	(15) Brake Position Sensor 5V Reference	(15) I	(15) —
(16) 16	(16) 0.5	(16) BU	(16) 2500	(16) High Speed GMLAN Serial Data [+] 1	(16) I	(16) —
(17) 17	(17) 0.5	(17) WH	(17) 2501	(17) High Speed GMLAN Serial Data [-] 1	(17) I	(17) —
(18) 18	(18) 0.5	(18) YE	(18) 6817	(18) LED Backlight Dimming Control 1	(18) I	(18) —
(19) 19	(19) 0.5	(19) WH / BU	(19) 5986	(19) Serial Data Communication Enable	(19) I	(19) —
20 - 21	—	—	—	Not Occupied	—	—
(22) 22	(22) 0.35	(22) GN / WH	(22) 7158	(22) Cruise Control Indicator Dimming Signal	(22) I	(22) —
23 - 24	—	—	—	Not Occupied	—	—
(25) 25	(25) 0.35	(25) WH	(25) 6816	(25) Indicator Dimming Control	(25) I	(25) —

K9 Body Control Module X4



1664499

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HITPB-25-D-K
- Service Connector: 88988841
- Description: 25-Way F HIT Series(BK)

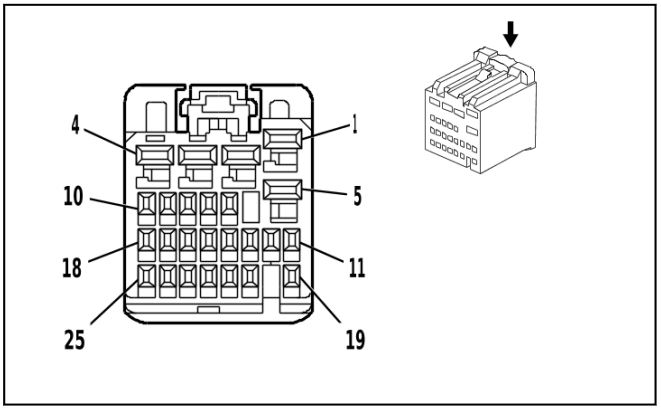
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.8	(1) RD / WH	(1) 2740	(1) Battery Positive Voltage	(1) II	(1) —
(2) 2	(2) 0.8	(2) RD / WH	(2) 3040	(2) Battery Positive Voltage	(2) II	(2) —
(3) 3	(3) 0.8	(3) RD / WH	(3) 2940	(3) Battery Positive Voltage	(3) II	(3) —
(4) 4	(4) 0.8	(4) RD / WH	(4) 2240	(4) Battery Positive Voltage	(4) II	(4) —
(5) 5	(5) 0.8	(5) BU / WH	(5) 1315	(5) Right Front Turn Signal Lamp Control	(5) II	(5) —
(6) 6	(6) 0.35	(6) D-GN	(6) 6134	(6) Body Control Module LIN Bus 3	(6) I	(6) —
(7) 7	(7) 0.35	(7) YE	(7) 196	(7) Windshield Wiper Motor Park Switch Signal	(7) I	(7) —
8	—	—	—	Not Occupied	—	—
(9) 9	(9) 0.5	(9) BK / WH	(9) 451	(9) Signal Ground	(9) I	(9) —
(10) 10	(10) 0.5	(10) RD / WH	(10) 2840	(10) Battery Positive Voltage	(10) I	(10) —
11	—	—	—	Not Occupied	—	—
(12) 12	(12) 0.35	(12) YE	(12) 5187	(12) Right Trailer Turn Signal Lamp Control	(12) I	(12) —
(13) 13	(13) 0.35	(13) OG	(13) 5186	(13) Left Trailer Turn Signal Lamp Control	(13) I	(13) —
14	—	—	—	Not Occupied	—	—
(15) 15	(15) 0.35	(15) OG	(15) 2268	(15) Windshield Washer Relay Control	(15) I	(15) —
(16) 16	(16) 0.35	(16) TN / WH	(16) 1969	(16) Headlamp High Beam Relay Control	(16) I	(16) —
(17) 17	(17) 0.5	(17) PK / BK	(17) 109	(17) Hood Ajar Switch Signal	(17) I	(17) —
18	—	—	—	Not Occupied	—	—
(19) 19	(19) 0.5	(19) BU	(19) 5985	(19) Accessory Wake-Up Serial Data	(19) I	(19) —
20	—	—	—	Not Occupied	—	—
(21) 21	(21) 0.35	(21) YE	(21) 5199	(21) Run/Crank Relay Coil Control	(21) I	(21) —
22	—	—	—	Not Occupied	—	—
(23) 23	(23) 0.35	(23) PU	(23) 544	(23) DRL Relay Control	(23) I	(23) —
24 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X5



1664500

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HITPB-25-E-N
- Service Connector: 88988837
- Description: 25-Way F HIT Series(BN)

Terminal Part Information

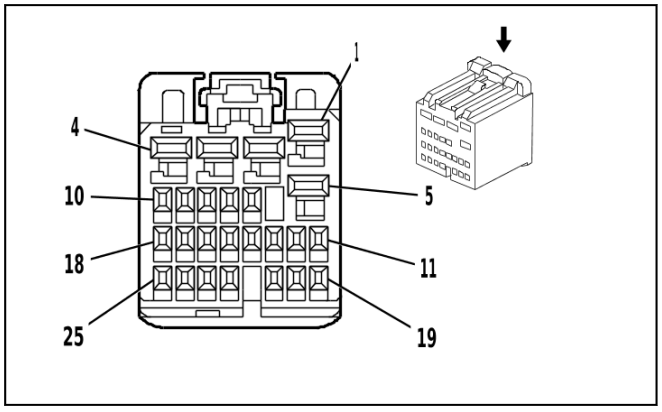
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 1	(1) YE	(1) 618	(1) Left Rear Turn Signal Lamp Control	(1) II	(1) —
(2) 2	(2) 1	(2) GN	(2) 619	(2) Right Rear Turn Signal Lamp Control	(2) II	(2) —
3	—	—	—	Not Occupied	—	—
(4) 4	(4) 0.8	(4) BU / WH	(4) 1314	(4) Left Front Turn Signal Lamp Control	(4) II	(4) —
(5) 5	(5) 0.5	(5) WH	(5) 5065	(5) Stop Lamp Relay Coil Control	(5) II	(5) —
(6) 6	(6) 0.35	(6) WH / BU	(6) 6311	(6) Cruise/ETC/TCC Brake Signal	(6) I	(6) —
7 - 10	—	—	—	Not Occupied	—	—
(11) 11	(11) 0.35	(11) YE	(11) 43	(11) Accessory Ignition Voltage	(11) I	(11) —
12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.35	(13) OG	(13) 300	(13) Run Ignition 3 Voltage	(13) I	(13) —
(14) 14	(14) 0.5	(14) GN / WH	(14) 24	(14) Backup Lamp Control	(14) I	(14) —
(15) 15	(15) 0.5	(15) PU	(15) 5531	(15) Hood Closed Switch Signal	(15) I	(15) —
(16) 16	(16) 0.35	(16) BU	(16) 1134	(16) Park Brake Switch Signal	(16) I	(16) —
17	—	—	—	Not Occupied	—	—
(18) 18	(18) 0.35	(18) TN	(18) 28	(18) Horn Relay Control	(18) I	(18) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	—	—	—	Not Occupied	—	—
(20) 20	(20) 0.35	(20) GY	(20) 91	(20) Windshield Wiper Motor Relay Coil Control	(20) I	(20) —
(21) 21	(21) 0.35	(21) TN	(21) 860	(21) Windshield Wiper Switch High Signal	(21) I	(21) —
22	—	—	—	Not Occupied	—	—
(23) 23	(23) 0.35	(23) PK / WH	(23) 1970	(23) Headlamp Low Beam Relay Control	(23) I	(23) —
(24) 24	(24) 0.35	(24) BU	(24) 45	(24) Park Lamp Relay Control	(24) I	(24) —
25	—	—	—	Not Occupied	—	—

K9 Body Control Module X6



1664502

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HITPB-25-F-PK
- Service Connector: 88988842
- Description: 25-Way F HIT Series(PK)

Terminal Part Information

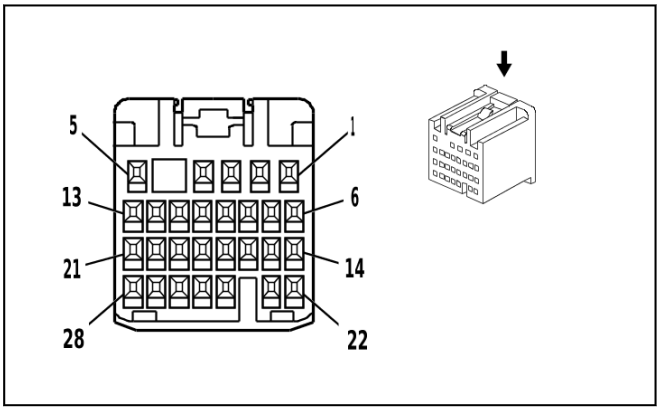
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A
II	13587507	J-35616-35 (VT)	J-38125-12A

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
(2) 2	(2) 0.8	(2) BU	(2) 1320	(2) Center High Mounted Stop Lamp Control 2	(2) II	(2) —
3 - 7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.35	(8) TN / WH	(8) 746	(8) Right Front Door Ajar Switch Signal	(8) I	(8) —
(9) 9	(9) 0.35	(9) BU	(9) 245	(9) Passenger Door Lock Switch Unlock Control	(9) I	(9) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(10) 10	(10) 0.35	(10) GY / BK	(10) 745	(10) Left Front Door Ajar Switch Signal	(10) I	(10) —
11	—	—	—	Not Occupied	—	—
(12) 12	(12) 0.35	(12) PK / BK	(12) 1303	(12) Liftgate Ajar Switch Signal 1	(12) I	(12) —
13	—	—	—	Not Occupied	—	—
(14) 14	(14) 0.35	(14) YE / BK	(14) 1181	(14) Right Rear Door Open Switch Signal	(14) I	(14) —
15	—	—	—	Not Occupied	—	—
(16) 16	(16) 0.35	(16) GN	(16) 1177	(16) Right Front Door Open Switch Signal	(16) I	(16) —
17	—	—	—	Not Occupied	—	—
(18) 18	(18) 0.35	(18) BU	(18) 244	(18) Passenger Door Lock Switch Lock Control	(18) I	(18) —
19 - 21	—	—	—	Not Occupied	—	—
(22) 22	(22) 0.35	(22) GN	(22) 5926	(22) Rear Body Opening Open Switch Signal	(22) I	(22) —
23 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X7



1664505

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HITPB-28-G-H
- Service Connector: 88988806
- Description: 28-Way F HIT Series(GY)

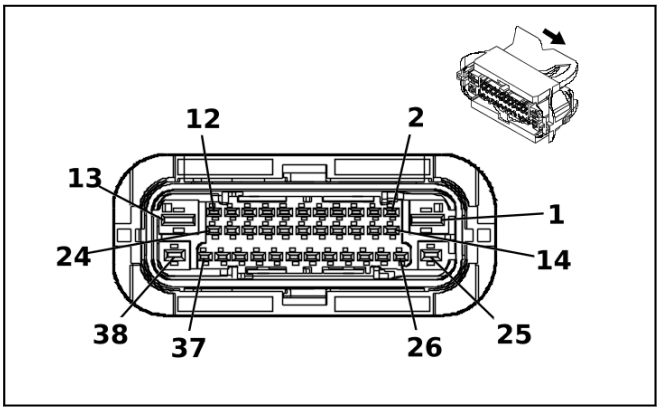
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575870	J-35616-64B (L-BU)	J-38125-12A

K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
(2) 2	(2) 0.5	(2) YE	(2) 356	(2) Driver Door Lock Relay Unlock Control	(2) I	(2) —
3 - 5	—	—	—	Not Occupied	—	—
(6) 6	(6) 0.5	(6) YE	(6) 356	(6) Driver Door Lock Relay Unlock Control	(6) I	(6) —
(7) 7	(7) 0.5	(7) BU	(7) 244	(7) Passenger Door Lock Switch Lock Control	(7) I	(7) —
8	—	—	—	Not Occupied	—	—
(9) 9	(9) 0.5	(9) BU	(9) 244	(9) Passenger Door Lock Switch Lock Control	(9) I	(9) —
10	—	—	—	Not Occupied	—	—
(11) 11	(11) 0.5	(11) OG / BK	(11) 781	(11) Driver Door Lock Switch Unlock Signal	(11) I	(11) —
(12) 12	(12) 0.5	(12) PK / BK	(12) 780	(12) Driver Door Lock Switch Lock Signal	(12) I	(12) —
13 - 22	—	—	—	Not Occupied	—	—
(23) 23	(23) 0.5	(23) TN	(23) 126	(23) Left Front Door Open Switch Signal	(23) I	(23) —
(24) 24	(24) 0.5	(24) GN	(24) 66	(24) Air Conditioning Request Signal	(24) I	(24) —
25 - 28	—	—	—	Not Occupied	—	—

K17 Electronic Brake Control Module



5199340

Connector Part Information

- Harness Type: Chassis Wiring Harness
- OEM Connector: 35497867
- Service Connector: Service by Harness - See Part Catalog
- Description: 38-Way F 1.5, 2.8, 4.8 MCP Series, Sealed(BK with BN Inner Connector)

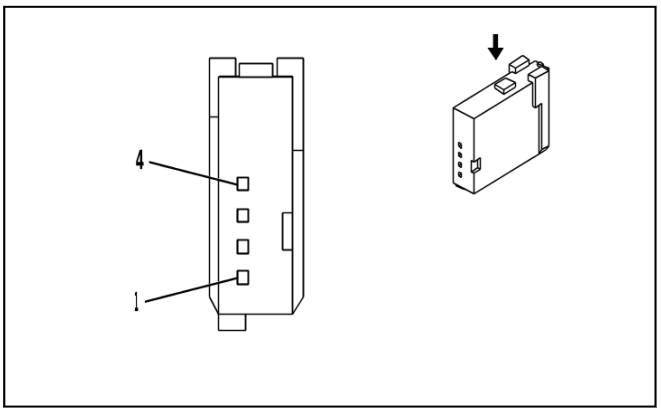
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	J-35616-42 (RD)	No Tool Required

K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 5	(1) RD / YE	(1) 442	(1) Battery Positive Voltage	(1) III	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) GY / YE	(3) 7128	(3) Right Rear Wheel Speed Sensor Control	(3) I	(3) —
(4) 4	(4) 0.5	(4) VT	(4) 882	(4) Right Rear Wheel Speed Sensor Signal	(4) I	(4) —
(5) 5	(5) 0.5	(5) BU / YE	(5) 6105	(5) High Speed GMLAN Serial Data [+] 2	(5) I	(5) —
(6) 6	(6) 0.5	(6) WH	(6) 6106	(6) High Speed GMLAN Serial Data [-] 2	(6) I	(6) —
7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.5	(8) WH	(8) 2501	(8) High Speed GMLAN Serial Data [-] 1	(8) I	(8) —
(9) 9	(9) 0.5	(9) BU	(9) 2500	(9) High Speed GMLAN Serial Data [+] 1	(9) I	(9) —
(10) 10	(10) 0.5	(10) GY / BN	(10) 7065	(10) Right Front Wheel Speed Sensor Control	(10) I	(10) —
(11) 11	(11) 0.5	(11) YE	(11) 872	(11) Right Front Wheel Speed Sensor Signal	(11) I	(11) —
12	—	—	—	Not Occupied	—	—
(13) 13	(13) 5	(13) BK	(13) 2150	(13) Ground	(13) III	(13) —
14 - 16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.5	(17) GN / BN	(17) 2087	(17) Multi-axis Acceleration Sensor Supply Voltage	(17) I	(17) —
18 - 19	—	—	—	Not Occupied	—	—
(20) 20	(20) 0.5	(20) WH	(20) 2501	(20) High Speed GMLAN Serial Data [-] 1	(20) I	(20) —
(21) 21	(21) 0.5	(21) BU	(21) 2500	(21) High Speed GMLAN Serial Data [+] 1	(21) I	(21) —
22 - 24	—	—	—	Not Occupied	—	—
(25) 25	(25) 2.5	(25) RD / VT	(25) 1640	(25) Battery Positive Voltage	(25) II	(25) —
26 - 27	—	—	—	Not Occupied	—	—
(28) 28	(28) 0.5	(28) WH / BU	(28) 5986	(28) Serial Data Communication Enable	(28) I	(28) —
(29) 29	(29) 0.5	(29) GY / BK	(29) 7127	(29) Left Rear Wheel Speed Sensor Control	(29) I	(29) —
(30) 30	(30) 0.5	(30) BU	(30) 884	(30) Left Rear Wheel Speed Sensor Signal	(30) I	(30) —
31 - 34	—	—	—	Not Occupied	—	—
(35) 35	(35) 0.5	(35) GY / WH	(35) 7064	(35) Left Front Wheel Speed Sensor Control	(35) I	(35) —
(36) 36	(36) 0.5	(36) GY	(36) 830	(36) Left Front Wheel Speed Sensor Signal	(36) I	(36) —
37	—	—	—	Not Occupied	—	—
(38) 38	(38) 2.5	(38) BK	(38) 2150	(38) Ground	(38) II	(38) —

K18 Compass Module (U80)



2831061

Connector Part Information

- Harness Type: Roof Console Wiring Harness
- OEM Connector: AIT2PB-04M-1AK
- Service Connector: 19300398
- Description: 4-Way F 0.64 Series(BK)

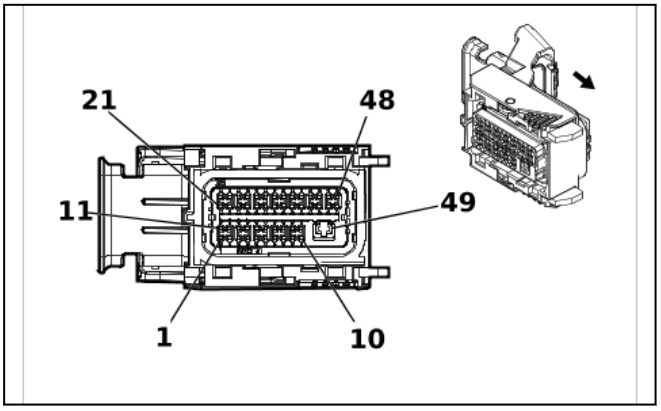
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K18 Compass Module (U80)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) BN	(1) 441	(1) Run Ignition 3 Voltage	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / WH	(2) 351	(2) Signal Ground	(2) I	(2) —
(3) 3	(3) 0.35	(3) GN	(3) 6134	(3) Body Control Module LIN Bus 3	(3) I	(3) —
4	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L8T)



5663663

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 35500079
- Service Connector: 85669159
- Description: 49-Way F 0.64, 2.8 Series, Sealed(BK with BU Terminal Position Assurance)

Terminal Part Information

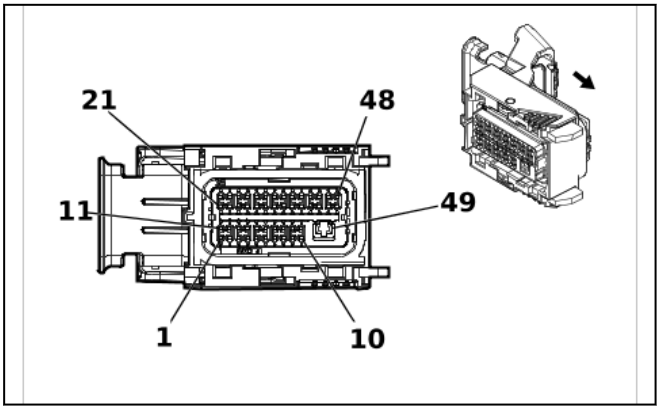
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (L-BU)	J-38125-213

K20 Engine Control Module X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / WH	(1) 492	(1) Mass Air Flow Sensor Signal	(1) II	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) WH	(3) 4499	(3) High Speed GMLAN Serial Data [-] 7	(3) II	(3) —
4 - 5	—	—	—	Not Occupied	—	—
(6) 6	(6) 0.5	(6) WH / BU	(6) 6311	(6) Cruise/ETC/TCC Brake Signal	(6) II	(6) —
(7) 7	(7) 0.5	(7) WH	(7) 2501	(7) High Speed GMLAN Serial Data [-] 1	(7) II	(7) —
(8) 8	(8) 0.5	(8) BN / WH	(8) 419	(8) Check Engine Indicator Control	(8) II	(8) —
(9) 9	(9) 0.5	(9) YE	(9) 5991	(9) Powertrain Relay Coil Control	(9) II	(9) —
10 - 11	—	—	—	Not Occupied	—	—
(12) 12	(12) 0.5	(12) BU / GY	(12) 636	(12) Ambient Air Temperature Sensor Signal	(12) II	(12) —
(13) 13	(13) 0.5	(13) BU / BN	(13) 4498	(13) High Speed GMLAN Serial Data [+] 7	(13) II	(13) —
(14) 14	(14) 0.5	(14) WH / GN	(14) 5380	(14) Brake Position Sensor Signal	(14) II	(14) —
15 - 16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.5	(17) BU	(17) 2500	(17) High Speed GMLAN Serial Data [+] 1	(17) II	(17) —
(18) 18	(18) 0.5	(18) WH / GY	(18) 459	(18) Air Conditioning Compressor Clutch Relay Control	(18) II	(18) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19 - 20	—	—	—	Not Occupied	—	—
(21) 21	(21) 0.5	(21) GN / BU	(21) 428	(21) EVAP Canister Purge Solenoid Control	(21) II	(21) —
22	—	—	—	Not Occupied	—	—
(23) 23	(23) 0.5	(23) BK / GN	(23) 580	(23) Engine Control Sensors Low Reference 2	(23) II	(23) —
(24) 24	(24) 0.5	(24) BK / BU	(24) 1271	(24) Accelerator Pedal Position Low Reference 1	(24) II	(24) —
25 - 26	—	—	—	Not Occupied	—	—
(27) 27	(27) 0.5	(27) GN / YE	(27) 3337	(27) Transmission Internal Mode Switch Mode Control Y	(27) II	(27) —
(28) 28	(28) 0.5	(28) BN / GN	(28) 1174	(28) Oil Level Switch Signal	(28) II	(28) —
29	—	—	—	Not Occupied	—	—
(30) 30	(30) 0.5	(30) BK / VT	(30) 1272	(30) Accelerator Pedal Position Low Reference 2	(30) II	(30) —
31	—	—	—	Not Occupied	—	—
(32) 32	(32) 0.75	(32) VT / BU	(32) 5291	(32) Powertrain Main Relay Fused Supply Voltage 2	(32) II	(32) —
(33) 33	(33) 0.5	(33) VT / YE	(33) 5985	(33) Accessory Wake-Up Serial Data	(33) II	(33) —
(34) 34	(34) 0.5	(34) RD / WH	(34) 140	(34) Battery Positive Voltage	(34) II	(34) —
35	—	—	—	Not Occupied	—	—
(36) 36	(36) 0.5	(36) YE / BK	(36) 625	(36) Starter Enable Relay Control	(36) II	(36) —
(37) 37	(37) 0.5	(37) GN / GY	(37) 465	(37) Fuel Pump Primary Relay Control	(37) II	(37) —
(38) 38	(38) 0.5	(38) WH / RD	(38) 1164	(38) Accelerator Pedal Position 5V Reference 1	(38) II	(38) —
(39) 39	(39) 0.5	(39) YE / WH	(39) 1161	(39) Accelerator Pedal Position Signal 1	(39) II	(39) —
(40) 40	(40) 0.5	(40) YE / BN	(40) 331	(40) Oil Pressure Sensor Signal	(40) II	(40) —
(41) 41	(41) 0.5	(41) GN	(41) 380	(41) Air Conditioning Refrigerant Pressure Sensor Signal	(41) II	(41) —
42 - 43	—	—	—	Not Occupied	—	—
(44) 44	(44) 0.5	(44) GN / WH	(44) 1162	(44) Accelerator Pedal Position Signal 2	(44) II	(44) —
(45) 45	(45) 0.5	(45) BN / RD	(45) 1274	(45) Accelerator Pedal Position 5V Reference 2	(45) II	(45) —
46	—	—	—	Not Occupied	—	—
(47) 47	(47) 0.5	(47) VT / GN	(47) 439	(47) Run/Crank Ignition 1 Voltage	(47) II	(47) —
(48) 48	(48) 0.75	(48) VT / BU	(48) 5290	(48) Powertrain Main Relay Fused Supply Voltage 1	(48) II	(48) —
(49) 49	(49) 2.5	(49) VT / BU	(49) 5290	(49) Powertrain Main Relay Fused Supply Voltage 1	(49) I	(49) —

K20 Engine Control Module X1 (LV1)



5663663

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 35500079
- Service Connector: 85669159
- Description: 49-Way F 0.64, 2.8 Series, Sealed(BK with BU Terminal Position Assurance)

Terminal Part Information

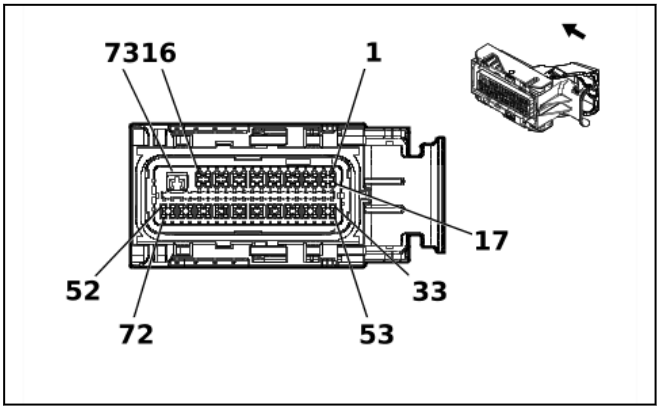
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (L-BU)	J-38125-213

K20 Engine Control Module X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / WH	(1) 492	(1) Mass Air Flow Sensor Signal	(1) II	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) WH	(3) 4499	(3) High Speed GMLAN Serial Data [-] 7	(3) II	(3) —
4 - 5	—	—	—	Not Occupied	—	—
(6) 6	(6) 0.5	(6) WH / BU	(6) 6311	(6) Cruise/ETC/TCC Brake Signal	(6) II	(6) —
(7) 7	(7) 0.5	(7) WH	(7) 2501	(7) High Speed GMLAN Serial Data [-] 1	(7) II	(7) —
(8) 8	(8) 0.5	(8) BN / WH	(8) 419	(8) Check Engine Indicator Control	(8) II	(8) —
(9) 9	(9) 0.5	(9) YE	(9) 5991	(9) Powertrain Relay Coil Control	(9) II	(9) —
10 - 11	—	—	—	Not Occupied	—	—
(12) 12	(12) 0.5	(12) BU / GY	(12) 636	(12) Ambient Air Temperature Sensor Signal	(12) II	(12) —
(13) 13	(13) 0.5	(13) BU / BN	(13) 4498	(13) High Speed GMLAN Serial Data [+] 7	(13) II	(13) —
(14) 14	(14) 0.5	(14) WH / GN	(14) 5380	(14) Brake Position Sensor Signal	(14) II	(14) —
15 - 16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.5	(17) BU	(17) 2500	(17) High Speed GMLAN Serial Data [+] 1	(17) II	(17) —
(18) 18	(18) 0.5	(18) WH / GY	(18) 459	(18) Air Conditioning Compressor Clutch Relay Control	(18) II	(18) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19 - 20	—	—	—	Not Occupied	—	—
(21) 21	(21) 0.5	(21) GN / BU	(21) 428	(21) EVAP Canister Purge Solenoid Control	(21) II	(21) —
22	—	—	—	Not Occupied	—	—
(23) 23	(23) 0.5	(23) BK / GN	(23) 580	(23) Engine Control Sensors Low Reference 2	(23) II	(23) —
(24) 24	(24) 0.5	(24) BK / BU	(24) 1271	(24) Accelerator Pedal Position Low Reference 1	(24) II	(24) —
25 - 26	—	—	—	Not Occupied	—	—
(27) 27	(27) 0.5	(27) GN / YE	(27) 3337	(27) Transmission Internal Mode Switch Mode Control Y	(27) II	(27) —
(28) 28	(28) 0.5	(28) BN / GN	(28) 1174	(28) Oil Level Switch Signal	(28) II	(28) —
29	—	—	—	Not Occupied	—	—
(30) 30	(30) 0.5	(30) BK / VT	(30) 1272	(30) Accelerator Pedal Position Low Reference 2	(30) II	(30) —
31	—	—	—	Not Occupied	—	—
(32) 32	(32) 0.75	(32) VT / BU	(32) 5291	(32) Powertrain Main Relay Fused Supply Voltage 2	(32) II	(32) —
(33) 33	(33) 0.5	(33) VT / YE	(33) 5985	(33) Accessory Wake-Up Serial Data	(33) II	(33) —
(34) 34	(34) 0.5	(34) RD / WH	(34) 140	(34) Battery Positive Voltage	(34) II	(34) —
35	—	—	—	Not Occupied	—	—
(36) 36	(36) 0.5	(36) YE / BK	(36) 625	(36) Starter Enable Relay Control	(36) II	(36) —
(37) 37	(37) 0.5	(37) GN / GY	(37) 465	(37) Fuel Pump Primary Relay Control	(37) II	(37) —
(38) 38	(38) 0.5	(38) WH / RD	(38) 1164	(38) Accelerator Pedal Position 5V Reference 1	(38) II	(38) —
(39) 39	(39) 0.5	(39) YE / WH	(39) 1161	(39) Accelerator Pedal Position Signal 1	(39) II	(39) —
(40) 40	(40) 0.5	(40) YE / BN	(40) 331	(40) Oil Pressure Sensor Signal	(40) II	(40) —
(41) 41	(41) 0.5	(41) GN	(41) 380	(41) Air Conditioning Refrigerant Pressure Sensor Signal	(41) II	(41) —
42 - 43	—	—	—	Not Occupied	—	—
(44) 44	(44) 0.5	(44) GN / WH	(44) 1162	(44) Accelerator Pedal Position Signal 2	(44) II	(44) —
(45) 45	(45) 0.5	(45) BN / RD	(45) 1274	(45) Accelerator Pedal Position 5V Reference 2	(45) II	(45) —
46	—	—	—	Not Occupied	—	—
(47) 47	(47) 0.5	(47) VT / GN	(47) 439	(47) Run/Crank Ignition 1 Voltage	(47) II	(47) —
(48) 48	(48) 0.75	(48) VT / BU	(48) 5290	(48) Powertrain Main Relay Fused Supply Voltage 1	(48) II	(48) —
(49) 49	(49) 2.5	(49) VT / BU	(49) 5290	(49) Powertrain Main Relay Fused Supply Voltage 1	(49) I	(49) —

K20 Engine Control Module X2 (L8T)



1673472

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 12672860
- Service Connector: 85761019
- Description: 73-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

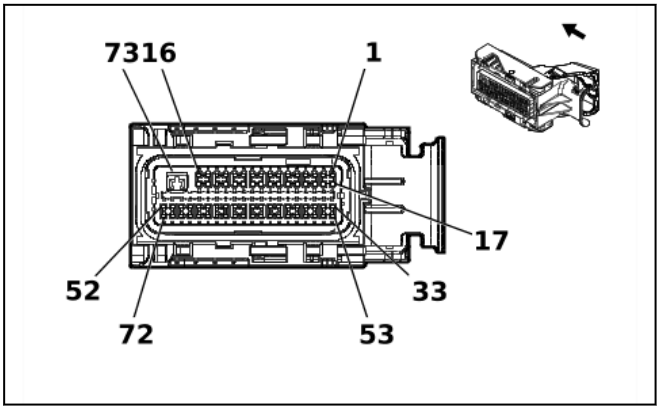
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-213
II	19368324	J-35616-35 (VT)	J-38125-11A

K20 Engine Control Module X2 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / YE	(1) 3212	(1) HO2S Heater Low Control Bank 2 Sensor 1	(1) I	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) BK / YE	(3) 548	(3) Engine Control Sensors Low Reference 1	(3) I	(3) —
4 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.5	(7) L-GN / WH	(7) 4622	(7) Engine Control Module LIN Bus 2	(7) I	(7) —
8 - 9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.5	(10) VT / GY	(10) 3110	(10) HO2S High Signal Bank 1 Sensor 1	(10) I	(10) —
(11) 11	(11) 0.5	(11) WH / BK	(11) 3111	(11) HO2S Low Signal Bank 1 Sensor 1	(11) I	(11) —
(12) 12	(12) 0.5	(12) YE / BU	(12) 2124	(12) Ignition Control 4	(12) I	(12) —
(13) 13	(13) 0.5	(13) BN / BU	(13) 2126	(13) Ignition Control 6	(13) I	(13) —
14 - 16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.5	(17) GY / WH	(17) 3113	(17) HO2S Heater Low Control Bank 1 Sensor 1	(17) I	(17) —
18 - 25	—	—	—	Not Occupied	—	—
(26) 26	(26) 0.5	(26) VT / WH	(26) 3210	(26) HO2S High Signal Bank 2 Sensor 1	(26) I	(26) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(27) 27	(27) 0.5	(27) YE / WH	(27) 3211	(27) HO2S Low Signal Bank 2 Sensor 1	(27) I	(27) —
(28) 28	(28) 0.5	(28) GN / BU	(28) 2123	(28) Ignition Control 3	(28) I	(28) —
(29) 29	(29) 0.5	(29) BU / GY	(29) 2125	(29) Ignition Control 5	(29) I	(29) —
(30) 30	(30) 0.5	(30) BK / GY	(30) 2130	(30) Ignition Control Low Reference Bank 2	(30) I	(30) —
31 - 32	—	—	—	Not Occupied	—	—
(33) 33	(33) 0.5	(33) WH / BN	(33) 3223	(33) HO2S Heater Low Control Bank 2 Sensor 2	(33) I	(33) —
34	—	—	—	Not Occupied	—	—
(35) 35	(35) 0.5	(35) BU	(35) 179	(35) Engine Oil Pump Control	(35) I	(35) —
36	—	—	—	Not Occupied	—	—
(37) 37	(37) 0.5	(37) VT / BU	(37) 5293	(37) Powertrain Main Relay Fused Supply Voltage 4	(37) I	(37) —
38	—	—	—	Not Occupied	—	—
(39) 39	(39) 0.5	(39) WH / RD	(39) 480	(39) Engine Control Vehicle Sensors 5 Volt Reference 1	(39) I	(39) —
40 - 45	—	—	—	Not Occupied	—	—
(46) 46	(46) 0.5	(46) YE / BU	(46) 3221	(46) HO2S Low Signal Bank 2 Sensor 2	(46) I	(46) —
(47) 47	(47) 0.5	(47) VT / GN	(47) 3220	(47) HO2S High Signal Bank 2 Sensor 2	(47) I	(47) —
48 - 49	—	—	—	Not Occupied	—	—
(50) 50	(50) 0.75	(50) BK / GY	(50) 2303	(50) Knock Sensor Low Reference 2	(50) I	(50) —
(51) 51	(51) 0.75	(51) BK / YE	(51) 1716	(51) Knock Sensor Low Reference 1	(51) I	(51) —
(52) 52	(52) 0.5	(52) BN / WH	(52) 582	(52) Throttle Actuator Close Control	(52) I	(52) —
(53) 53	(53) 0.5	(53) GY / WH	(53) 3122	(53) HO2S Heater Low Control Bank 1 Sensor 2	(53) I	(53) —
54 - 58	—	—	—	Not Occupied	—	—
(59) 59	(59) 0.5	(59) BU / RD	(59) 460	(59) Engine Control Sensors 5 Volt Reference 1	(59) I	(59) —
60 - 65	—	—	—	Not Occupied	—	—
(66) 66	(66) 0.5	(66) WH / YE	(66) 3121	(66) HO2S Low Signal Bank 1 Sensor 2	(66) I	(66) —
(67) 67	(67) 0.5	(67) VT / BU	(67) 3120	(67) HO2S High Signal Bank 1 Sensor 2	(67) I	(67) —
68 - 69	—	—	—	Not Occupied	—	—
(70) 70	(70) 0.75	(70) WH / GY	(70) 1876	(70) Knock Sensor 2 Signal	(70) I	(70) —
(71) 71	(71) 0.75	(71) VT / GY	(71) 496	(71) Knock Sensor 1 Signal	(71) I	(71) —
(72) 72	(72) 0.5	(72) YE	(72) 581	(72) Throttle Actuator Open Control	(72) I	(72) —
(73) 73	(73) 3	(73) BK / WH	(73) 1551	(73) Signal Ground	(73) II	(73) —

K20 Engine Control Module X2 (LV1)



1673472

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 35386331
- Service Connector: 85761019
- Description: 73-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

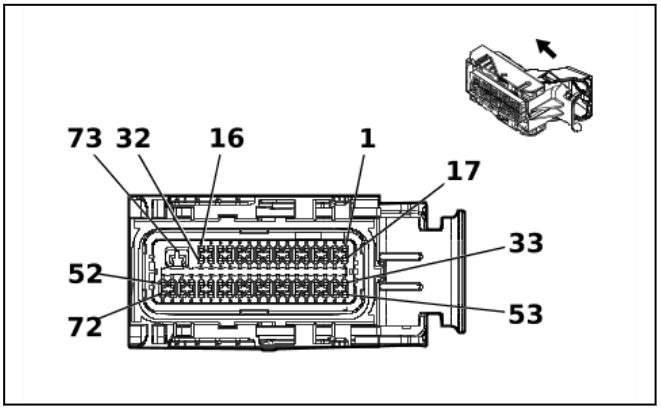
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-213
II	19368324	J-35616-35 (VT)	J-38125-11A

K20 Engine Control Module X2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / YE	(1) 3212	(1) HO2S Heater Low Control Bank 2 Sensor 1	(1) I	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) BK / YE	(3) 548	(3) Engine Control Sensors Low Reference 1	(3) I	(3) —
4 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.5	(7) GN / WH	(7) 4622	(7) Engine Control Module LIN Bus 2	(7) I	(7) —
8 - 9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.5	(10) VT / GY	(10) 3110	(10) HO2S High Signal Bank 1 Sensor 1	(10) I	(10) —
(11) 11	(11) 0.5	(11) WH / BK	(11) 3111	(11) HO2S Low Signal Bank 1 Sensor 1	(11) I	(11) —
12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.5	(13) GN / BU	(13) 2123	(13) Ignition Control 3	(13) I	(13) —
14 - 16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.5	(17) GY / WH	(17) 3113	(17) HO2S Heater Low Control Bank 1 Sensor 1	(17) I	(17) —
18 - 25	—	—	—	Not Occupied	—	—
(26) 26	(26) 0.5	(26) VT / WH	(26) 3210	(26) HO2S High Signal Bank 2 Sensor 1	(26) I	(26) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(27) 27	(27) 0.5	(27) YE / WH	(27) 3211	(27) HO2S Low Signal Bank 2 Sensor 1	(27) I	(27) —
28	—	—	—	Not Occupied	—	—
(29) 29	(29) 0.5	(29) BU / WH	(29) 2122	(29) Ignition Control 2	(29) I	(29) —
(30) 30	(30) 0.5	(30) BK / GY	(30) 2130	(30) Ignition Control Low Reference Bank 2	(30) I	(30) —
31 - 32	—	—	—	Not Occupied	—	—
(33) 33	(33) 0.5	(33) WH / BN	(33) 3223	(33) HO2S Heater Low Control Bank 2 Sensor 2	(33) I	(33) —
34 - 36	—	—	—	Not Occupied	—	—
(37) 37	(37) 0.5	(37) VT / BU	(37) 5293	(37) Powertrain Main Relay Fused Supply Voltage 4	(37) I	(37) —
38	—	—	—	Not Occupied	—	—
(39) 39	(39) 0.5	(39) WH / RD	(39) 480	(39) Engine Control Vehicle Sensors 5 Volt Reference 1	(39) I	(39) —
40 - 45	—	—	—	Not Occupied	—	—
(46) 46	(46) 0.5	(46) YE / BU	(46) 3221	(46) HO2S Low Signal Bank 2 Sensor 2	(46) I	(46) —
(47) 47	(47) 0.5	(47) VT / GN	(47) 3220	(47) HO2S High Signal Bank 2 Sensor 2	(47) I	(47) —
48 - 49	—	—	—	Not Occupied	—	—
(50) 50	(50) 0.75	(50) BK / GY	(50) 2303	(50) Knock Sensor Low Reference 2	(50) I	(50) —
(51) 51	(51) 0.75	(51) BK / YE	(51) 1716	(51) Knock Sensor Low Reference 1	(51) I	(51) —
(52) 52	(52) 0.5	(52) BN / WH	(52) 582	(52) Throttle Actuator Close Control	(52) I	(52) —
(53) 53	(53) 0.5	(53) GY / WH	(53) 3122	(53) HO2S Heater Low Control Bank 1 Sensor 2	(53) I	(53) —
54 - 58	—	—	—	Not Occupied	—	—
(59) 59	(59) 0.5	(59) BU / RD	(59) 460	(59) Engine Control Sensors 5 Volt Reference 1	(59) I	(59) —
60 - 65	—	—	—	Not Occupied	—	—
(66) 66	(66) 0.5	(66) WH / YE	(66) 3121	(66) HO2S Low Signal Bank 1 Sensor 2	(66) I	(66) —
(67) 67	(67) 0.5	(67) VT / BU	(67) 3120	(67) HO2S High Signal Bank 1 Sensor 2	(67) I	(67) —
68 - 69	—	—	—	Not Occupied	—	—
(70) 70	(70) 0.75	(70) WH / GY	(70) 1876	(70) Knock Sensor 2 Signal	(70) I	(70) —
(71) 71	(71) 0.75	(71) VT / GY	(71) 496	(71) Knock Sensor 1 Signal	(71) I	(71) —
(72) 72	(72) 0.5	(72) YE	(72) 581	(72) Throttle Actuator Open Control	(72) I	(72) —
(73) 73	(73) 3	(73) BK / WH	(73) 1551	(73) Signal Ground	(73) II	(73) —

K20 Engine Control Module X3 (L8T)



1650395

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 35505841
- Service Connector: 19333091
- Description: 73-Way F 0.64, 2.8 Series, Sealed(BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-213
II	19368324	J-35616-35 (VT)	J-38125-11A

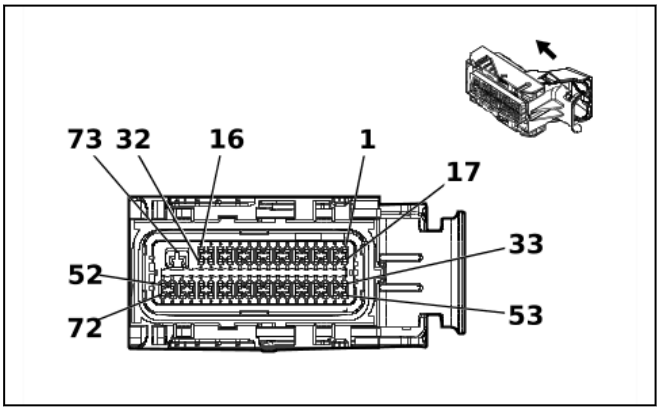
K20 Engine Control Module X3 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.5	(5) VT / BN	(5) 5284	(5) Intake Camshaft Position Actuator Solenoid Valve 1	(5) I	(5) —
(6) 6	(6) 0.5	(6) VT / GN	(6) 4320	(6) Powertrain Sensor Bus Enable	(6) I	(6) —
7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.5	(8) YE / VT	(8) 5275	(8) Intake Camshaft Position Sensor 1	(8) I	(8) —
(9) 9	(9) 0.5	(9) GY / BU	(9) 5300	(9) Intake Camshaft Position Sensor 1 Voltage Reference	(9) I	(9) —
(10) 10	(10) 0.5	(10) GN	(10) 6271	(10) Crankshaft Position Sensor Signal	(10) I	(10) —
11	—	—	—	Not Occupied	—	—
(12) 12	(12) 0.5	(12) BU / WH	(12) 2122	(12) Ignition Control 2	(12) I	(12) —
(13) 13	(13) 0.5	(13) VT / WH	(13) 2128	(13) Ignition Control 8	(13) I	(13) —
(14) 14	(14) 0.5	(14) BN	(14) 25	(14) Charge Indicator Control	(14) I	(14) —
15	—	—	—	Not Occupied	—	—
(16) 16	(16) 0.75	(16) YE	(16) 7301	(16) High Pressure Fuel Pump High Control	(16) I	(16) —
17 - 20	—	—	—	Not Occupied	—	—
(21) 21	(21) 0.5	(21) BK / BN	(21) 6753	(21) Camshaft Position Actuator Solenoid Valve W Low Reference	(21) I	(21) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22 - 23	—	—	—	Not Occupied	—	—
(24) 24	(24) 0.5	(24) BK / GN	(24) 5301	(24) Intake Camshaft Position Sensor Low Reference 1	(24) I	(24) —
(25) 25	(25) 0.5	(25) VT / BU	(25) 6270	(25) Crankshaft Position Sensor Voltage	(25) I	(25) —
(26) 26	(26) 0.5	(26) BK / VT	(26) 6272	(26) Crankshaft Position Sensor Low Reference	(26) I	(26) —
27	—	—	—	Not Occupied	—	—
(28) 28	(28) 0.5	(28) GN / GY	(28) 2127	(28) Ignition Control 7	(28) I	(28) —
(29) 29	(29) 0.5	(29) BU / VT	(29) 2121	(29) Ignition Control 1	(29) I	(29) —
(30) 30	(30) 0.5	(30) BK / BU	(30) 2129	(30) Ignition Control Low Reference Bank 1	(30) I	(30) —
31	—	—	—	Not Occupied	—	—
(32) 32	(32) 0.75	(32) VT / BK	(32) 7300	(32) High Pressure Fuel Pump Low Control	(32) I	(32) —
33 - 35	—	—	—	Not Occupied	—	—
(36) 36	(36) 0.5	(36) BK / BN	(36) 2752	(36) Throttle Position Sensor Low Reference	(36) I	(36) —
(37) 37	(37) 0.5	(37) BK / GN	(37) 469	(37) Manifold Absolute Pressure Sensor Low Reference	(37) I	(37) —
38 - 39	—	—	—	Not Occupied	—	—
(40) 40	(40) 0.5	(40) BN / BU	(40) 357	(40) Oil Temperature Sensor Signal	(40) I	(40) —
41 - 42	—	—	—	Not Occupied	—	—
(43) 43	(43) 0.5	(43) BK / GY	(43) 626	(43) Engine Control Vehicle Sensors Low Reference 1	(43) I	(43) —
(44) 44	(44) 0.75	(44) VT / BU	(44) 5292	(44) Powertrain Main Relay Fused Supply Voltage 3	(44) I	(44) —
(45) 45	(45) 0.75	(45) GN	(45) 4803	(45) Direct Fuel Injector High Voltage Control Cylinder 3	(45) I	(45) —
(46) 46	(46) 0.75	(46) GY / BU	(46) 4804	(46) Direct Fuel Injector High Voltage Control Cylinder 4	(46) I	(46) —
(47) 47	(47) 0.75	(47) WH / GN	(47) 4805	(47) Direct Fuel Injector High Voltage Control Cylinder 5	(47) I	(47) —
(48) 48	(48) 0.75	(48) VT / GN	(48) 4806	(48) Direct Fuel Injector High Voltage Control Cylinder 6	(48) I	(48) —
(49) 49	(49) 0.75	(49) BU	(49) 4802	(49) Direct Fuel Injector High Voltage Control Cylinder 2	(49) I	(49) —
(50) 50	(50) 0.75	(50) YE / GY	(50) 4807	(50) Direct Fuel Injector High Voltage Control Cylinder 7	(50) I	(50) —
(51) 51	(51) 0.75	(51) GY	(51) 4808	(51) Direct Fuel Injector High Voltage Control Cylinder 8	(51) I	(51) —
(52) 52	(52) 0.75	(52) BN	(52) 4801	(52) Direct Fuel Injector High Voltage Control Cylinder 1	(52) I	(52) —
53 - 54	—	—	—	Not Occupied	—	—
(55) 55	(55) 0.5	(55) BN / RD	(55) 2701	(55) Throttle Position Sensor 5V Reference	(55) I	(55) —
(56) 56	(56) 0.5	(56) BU / WH	(56) 3630	(56) Throttle Position Sensor SENT 1 Signal	(56) I	(56) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(57) 57	(57) 0.5	(57) GY / RD	(57) 2704	(57) Manifold Absolute Pressure Sensor 5V Reference	(57) I	(57) —
(58) 58	(58) 0.5	(58) GN / WH	(58) 432	(58) Manifold Absolute Pressure Sensor Signal	(58) I	(58) —
59 - 60	—	—	—	Not Occupied	—	—
(61) 61	(61) 0.5	(61) BU	(61) 410	(61) Engine Coolant Temperature Sensor Signal	(61) I	(61) —
62	—	—	—	Not Occupied	—	—
(63) 63	(63) 0.5	(63) BU / WH	(63) 10786	(63) Fuel Rail Pressure Sensor SENT 1 Signal	(63) I	(63) —
(64) 64	(64) 0.5	(64) GY	(64) 23	(64) Generator Field Duty Cycle Signal	(64) I	(64) —
(65) 65	(65) 0.75	(65) GN / GY	(65) 4903	(65) Direct Fuel Injector High Voltage Supply Cylinder 3	(65) I	(65) —
(66) 66	(66) 0.75	(66) BU / WH	(66) 4904	(66) Direct Fuel Injector High Voltage Supply Cylinder 4	(66) I	(66) —
(67) 67	(67) 0.75	(67) GN / WH	(67) 4905	(67) Direct Fuel Injector High Voltage Supply Cylinder 5	(67) I	(67) —
(68) 68	(68) 0.75	(68) VT / GY	(68) 4906	(68) Direct Fuel Injector High Voltage Supply Cylinder 6	(68) I	(68) —
(69) 69	(69) 0.75	(69) BU / GY	(69) 4902	(69) Direct Fuel Injector High Voltage Supply Cylinder 2	(69) I	(69) —
(70) 70	(70) 0.75	(70) WH / YE	(70) 4907	(70) Direct Fuel Injector High Voltage Supply Cylinder 7	(70) I	(70) —
(71) 71	(71) 0.75	(71) GY / WH	(71) 4908	(71) Direct Fuel Injector High Voltage Supply Cylinder 8	(71) I	(71) —
(72) 72	(72) 0.75	(72) BN / WH	(72) 4901	(72) Direct Fuel Injector High Voltage Supply Cylinder 1	(72) I	(72) —
(73) 73	(73) 3	(73) BK / WH	(73) 1551	(73) Signal Ground	(73) II	(73) —

K20 Engine Control Module X3 (LV1)



1650395

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 35505841
- Service Connector: 19333091
- Description: 73-Way F 0.64, 2.8 Series, Sealed(BK with GY Terminal Position Assurance)

Terminal Part Information

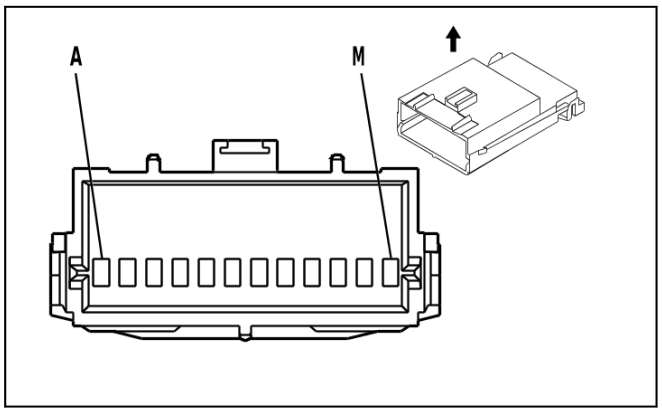
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-213
II	19368324	J-35616-35 (VT)	J-38125-11A

K20 Engine Control Module X3 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.5	(5) VT / BN	(5) 5284	(5) Intake Camshaft Position Actuator Solenoid Valve 1	(5) I	(5) —
(6) 6	(6) 0.5	(6) VT / GN	(6) 4320	(6) Powertrain Sensor Bus Enable	(6) I	(6) —
7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.5	(8) YE / VT	(8) 5275	(8) Intake Camshaft Position Sensor 1	(8) I	(8) —
(9) 9	(9) 0.5	(9) GY / BU	(9) 5300	(9) Intake Camshaft Position Sensor 1 Voltage Reference	(9) I	(9) —
(10) 10	(10) 0.5	(10) GN	(10) 6271	(10) Crankshaft Position Sensor Signal	(10) I	(10) —
11	—	—	—	Not Occupied	—	—
(12) 12	(12) 0.5	(12) YE / BU	(12) 2124	(12) Ignition Control 4	(12) I	(12) —
(13) 13	(13) 0.5	(13) BN / BU	(13) 2126	(13) Ignition Control 6	(13) I	(13) —
(14) 14	(14) 0.5	(14) BN	(14) 25	(14) Charge Indicator Control	(14) I	(14) —
15	—	—	—	Not Occupied	—	—
(16) 16	(16) 0.75	(16) YE	(16) 7301	(16) High Pressure Fuel Pump High Control	(16) I	(16) —
17 - 20	—	—	—	Not Occupied	—	—
(21) 21	(21) 0.5	(21) BK / BN	(21) 6753	(21) Camshaft Position Actuator Solenoid Valve W Low Reference	(21) I	(21) —
22 - 23	—	—	—	Not Occupied	—	—
(24) 24	(24) 0.5	(24) BK / GN	(24) 5301	(24) Intake Camshaft Position Sensor Low Reference 1	(24) I	(24) —
(25) 25	(25) 0.5	(25) VT / BU	(25) 6270	(25) Crankshaft Position Sensor Voltage	(25) I	(25) —
(26) 26	(26) 0.5	(26) BK / VT	(26) 6272	(26) Crankshaft Position Sensor Low Reference	(26) I	(26) —
27	—	—	—	Not Occupied	—	—
(28) 28	(28) 0.5	(28) BU / GY	(28) 2125	(28) Ignition Control 5	(28) I	(28) —
(29) 29	(29) 0.5	(29) BU / VT	(29) 2121	(29) Ignition Control 1	(29) I	(29) —
(30) 30	(30) 0.5	(30) BK / BU	(30) 2129	(30) Ignition Control Low Reference Bank 1	(30) I	(30) —
31	—	—	—	Not Occupied	—	—
(32) 32	(32) 0.75	(32) VT / BK	(32) 7300	(32) High Pressure Fuel Pump Low Control	(32) I	(32) —
33 - 35	—	—	—	Not Occupied	—	—
(36) 36	(36) 0.5	(36) BK / BN	(36) 2752	(36) Throttle Position Sensor Low Reference	(36) I	(36) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(37) 37	(37) 0.5	(37) BK / GN	(37) 469	(37) Manifold Absolute Pressure Sensor Low Reference	(37) I	(37) —
38 - 42	—	—	—	Not Occupied	—	—
(43) 43	(43) 0.5	(43) BK / GY	(43) 626	(43) Engine Control Vehicle Sensors Low Reference 1	(43) I	(43) —
(44) 44	(44) 0.75	(44) VT / BU	(44) 5292	(44) Powertrain Main Relay Fused Supply Voltage 3	(44) I	(44) —
45 - 46	—	—	—	Not Occupied	—	—
(47) 47	(47) 0.75	(47) BU	(47) 4802	(47) Direct Fuel Injector High Voltage Control Cylinder 2	(47) I	(47) —
(48) 48	(48) 0.75	(48) GN	(48) 4803	(48) Direct Fuel Injector High Voltage Control Cylinder 3	(48) I	(48) —
(49) 49	(49) 0.75	(49) GY / BU	(49) 4804	(49) Direct Fuel Injector High Voltage Control Cylinder 4	(49) I	(49) —
(50) 50	(50) 0.75	(50) WH / GN	(50) 4805	(50) Direct Fuel Injector High Voltage Control Cylinder 5	(50) I	(50) —
(51) 51	(51) 0.75	(51) VT / GN	(51) 4806	(51) Direct Fuel Injector High Voltage Control Cylinder 6	(51) I	(51) —
(52) 52	(52) 0.75	(52) BN	(52) 4801	(52) Direct Fuel Injector High Voltage Control Cylinder 1	(52) I	(52) —
53 - 54	—	—	—	Not Occupied	—	—
(55) 55	(55) 0.5	(55) BN / RD	(55) 2701	(55) Throttle Position Sensor 5V Reference	(55) I	(55) —
(56) 56	(56) 0.5	(56) BU / WH	(56) 3630	(56) Throttle Position Sensor SENT 1 Signal	(56) I	(56) —
(57) 57	(57) 0.5	(57) GY / RD	(57) 2704	(57) Manifold Absolute Pressure Sensor 5V Reference	(57) I	(57) —
(58) 58	(58) 0.5	(58) GN / WH	(58) 432	(58) Manifold Absolute Pressure Sensor Signal	(58) I	(58) —
59 - 60	—	—	—	Not Occupied	—	—
(61) 61	(61) 0.5	(61) BU	(61) 410	(61) Engine Coolant Temperature Sensor Signal	(61) I	(61) —
62	—	—	—	Not Occupied	—	—
(63) 63	(63) 0.5	(63) BU / WH	(63) 10786	(63) Fuel Rail Pressure Sensor SENT 1 Signal	(63) I	(63) —
(64) 64	(64) 0.5	(64) GY	(64) 23	(64) Generator Field Duty Cycle Signal	(64) I	(64) —
65 - 66	—	—	—	Not Occupied	—	—
(67) 67	(67) 0.75	(67) BU / GY	(67) 4902	(67) Direct Fuel Injector High Voltage Supply Cylinder 2	(67) I	(67) —
(68) 68	(68) 0.75	(68) GN / GY	(68) 4903	(68) Direct Fuel Injector High Voltage Supply Cylinder 3	(68) I	(68) —
(69) 69	(69) 0.75	(69) BU / WH	(69) 4904	(69) Direct Fuel Injector High Voltage Supply Cylinder 4	(69) I	(69) —
(70) 70	(70) 0.75	(70) GN / WH	(70) 4905	(70) Direct Fuel Injector High Voltage Supply Cylinder 5	(70) I	(70) —
(71) 71	(71) 0.75	(71) VT / GY	(71) 4906	(71) Direct Fuel Injector High Voltage Supply Cylinder 6	(71) I	(71) —
(72) 72	(72) 0.75	(72) BN / WH	(72) 4901	(72) Direct Fuel Injector High Voltage Supply Cylinder 1	(72) I	(72) —
(73) 73	(73) 3	(73) BK / WH	(73) 1551	(73) Signal Ground	(73) II	(73) —

K33A HVAC Control Module - Auxiliary



328486

Connector Part Information

- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12040747
- Service Connector: 12101938
- Description: 12-Way F P/C Edgeboard Standard Series(BK)

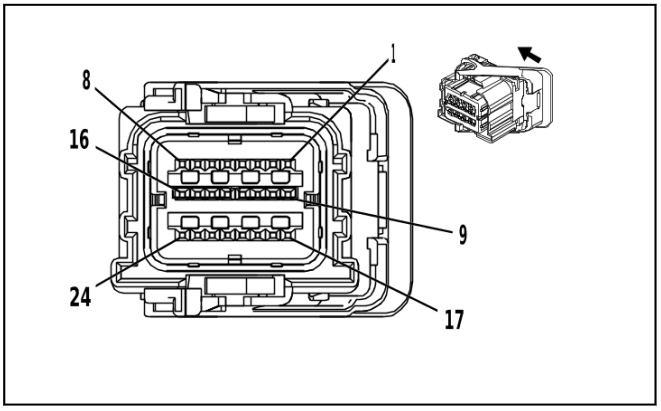
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19330178	J-35616-4A (PU)	J-38125-12A

K33A HVAC Control Module - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
B	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
C	0.5	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—
D	0.5	PU / WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
E	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
F	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
G	—	—	—	Not Occupied	—	—
H	0.35	BK	1850	Ground	I	—
J	0.35	BN	341	Run Ignition 3 Voltage	I	—
K	—	—	—	Not Occupied	—	—
L	0.5	PK / BK	5265	Auxiliary HVAC Rear Control Signal	I	—
M	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 35624330
- Service Connector: 13579314
- Description: 24-Way F 0.64 Series, Sealed(YE)

Terminal Part Information

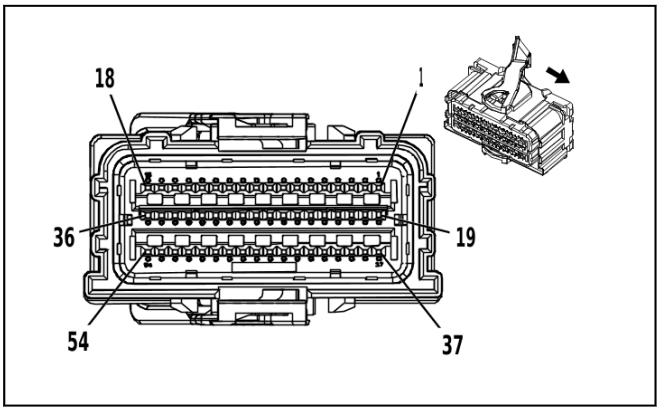
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19328872	J-35616-64B (L-BU)	J-38125-11A

K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
(3) 3	(3) 0.5	(3) BN	(3) 3020	(3) Steering Wheel Air Bag Stage 1 Low Control	(3) I	(3) —
(4) 4	(4) 0.5	(4) TN	(4) 3021	(4) Steering Wheel Air Bag Stage 1 High Control	(4) I	(4) —
(5) 5	(5) 0.5	(5) YE	(5) 3025	(5) Passenger Instrument Panel Air Bag Stage 1 High Control	(5) I	(5) —
(6) 6	(6) 0.5	(6) OG	(6) 3024	(6) Passenger Instrument Panel Air Bag Stage 1 Low Control	(6) I	(6) —
7 - 8	—	—	—	Not Occupied	—	—
(9) 9	(9) 0.5	(9) RD / WH	(9) 3440	(9) Battery Positive Voltage	(9) I	(9) —
10 - 12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.5	(13) PK	(13) 353	(13) Passenger Supplemental Inflatable Restraint Suppression Indicator Control	(13) I	(13) —
(14) 14	(14) 0.5	(14) TN / BK	(14) 371	(14) Passenger Supplemental Inflatable Restraint Disable Switch Signal	(14) I	(14) —
(15) 15	(15) 0.35	(15) GN	(15) 5060	(15) Low Speed GMLAN Serial Data	(15) I	(15) —
16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.35	(17) PK	(17) 1139	(17) Run/Crank Ignition 1 Voltage	(17) I	(17) —
18	—	—	—	Not Occupied	—	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(19) 19	(19) 0.5	(19) BK / WH	(19) 1751	(19) Signal Ground	(19) I	(19) —
20 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

Connector Part Information

- Harness Type: Body Wiring Harness
- OEM Connector: 35624334
- Service Connector: 86579820
- Description: 54-Way F 0.64 Series, Sealed(YE)

Terminal Part Information

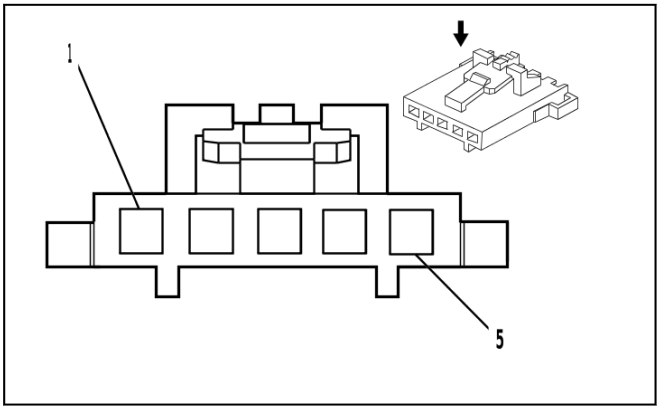
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19328872	J-35616-64B (L-BU)	J-38125-11A

K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 10	—	—	—	Not Occupied	—	—
(11) 11	(11) 0.5	(11) TN / BK	(11) 7016	(11) Right Rear Roof Rail Air Bag Low Control	(11) I	(11) —
(12) 12	(12) 0.5	(12) BU	(12) 7015	(12) Right Rear Roof Rail Air Bag High Control	(12) I	(12) —
(13) 13	(13) 0.5	(13) BN	(13) 2137	(13) Left Front Seat Side Air Bag High Control	(13) I	(13) —
(14) 14	(14) 0.5	(14) YE / BK	(14) 2138	(14) Left Front Seat Side Air Bag Low Control	(14) I	(14) —
(15) 15	(15) 0.5	(15) GN	(15) 2136	(15) Right Front Seat Side Air Bag Low Control	(15) I	(15) —
(16) 16	(16) 0.5	(16) TN / WH	(16) 2135	(16) Right Front Seat Side Air Bag High Control	(16) I	(16) —
(17) 17	(17) 0.5	(17) PU / WH	(17) 5019	(17) Left Front Roof Rail Air Bag High Control	(17) I	(17) —
(18) 18	(18) 0.5	(18) PK	(18) 5020	(18) Left Front Roof Rail Air Bag Low Control	(18) I	(18) —
(19) 19	(19) 0.5	(19) WH	(19) 2132	(19) Left Front Side Impact Sensor Signal	(19) I	(19) —
(20) 20	(20) 0.5	(20) PU / WH	(20) 6628	(20) Left Front Side Impact Sensor Low Reference	(20) I	(20) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(21) 21	(21) 0.5	(21) WH / BK	(21) 6629	(21) Right Front Side Impact Sensor Low Reference	(21) I	(21) —
(22) 22	(22) 0.5	(22) GN	(22) 2134	(22) Right Front Side Impact Sensor Signal	(22) I	(22) —
23 - 24	—	—	—	Not Occupied	—	—
(25) 25	(25) 0.5	(25) BU / WH	(25) 6619	(25) Front Middle Impact Discriminating Sensor Low Reference	(25) I	(25) —
(26) 26	(26) 0.5	(26) BN / WH	(26) 6618	(26) Front Middle Impact Discriminating Sensor Signal	(26) I	(26) —
(27) 27	(27) 0.5	(27) GN / WH	(27) 6620	(27) Left Middle Side Impact Sensor Signal	(27) I	(27) —
(28) 28	(28) 0.5	(28) GY / BK	(28) 6621	(28) Left Middle Side Impact Sensor Low Reference	(28) I	(28) —
(29) 29	(29) 0.5	(29) GN / WH	(29) 6625	(29) Right Middle Side Impact Sensor Low Reference	(29) I	(29) —
(30) 30	(30) 0.5	(30) BU / BK	(30) 6624	(30) Right Middle Side Impact Sensor Signal	(30) I	(30) —
31 - 36	—	—	—	Not Occupied	—	—
(37) 37	(37) 0.5	(37) TN / WH	(37) 2118	(37) Driver Seat Belt Pretensioner High Control	(37) I	(37) —
(38) 38	(38) 0.5	(38) OG / BK	(38) 2119	(38) Driver Seat Belt Pretensioner Low Control	(38) I	(38) —
(39) 39	(39) 0.5	(39) OG	(39) 2117	(39) Passenger Seat Belt Pretensioner Low Control	(39) I	(39) —
(40) 40	(40) 0.5	(40) GN	(40) 2116	(40) Passenger Seat Belt Pretensioner High Control	(40) I	(40) —
(41) 41	(41) 0.5	(41) TN / WH	(41) 238	(41) Driver Seat Belt Switch Signal	(41) I	(41) —
42	—	—	—	Not Occupied	—	—
(43) 43	(43) 0.5	(43) PK	(43) 5057	(43) Seat Position Switch Low Reference	(43) I	(43) —
44 - 52	—	—	—	Not Occupied	—	—
(53) 53	(53) 0.5	(53) YE / BK	(53) 5021	(53) Right Front Roof Rail Air Bag High Control	(53) I	(53) —
(54) 54	(54) 0.5	(54) WH / BK	(54) 5022	(54) Right Front Roof Rail Air Bag Low Control	(54) I	(54) —

K64 Content Theft Deterrent Control Module



1593355

Connector Part Information

- Harness Type: Steering Column
- OEM Connector: 15383337
- Service Connector: Service by Harness - See Part Catalog
- Description: 5-Way F SL Series(BK)

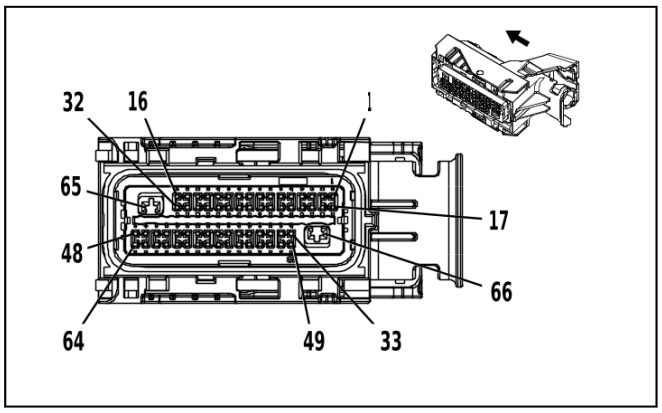
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K64 Content Theft Deterrent Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) RD / WH	(1) 540	(1) Battery Positive Voltage	(1) I	(1) —
(2) 2	(2) —	(2) BN	(2) 4	(2) Accessory Ignition Voltage	(2) I	(2) —
(3) 3	(3) —	(3) BK / WH	(3) 351	(3) Signal Ground	(3) I	(3) —
(4) 4	(4) —	(4) GN	(4) 5060	(4) Low Speed GMLAN Serial Data	(4) I	(4) —
5	—	—	—	Not Occupied	—	—

K71 Transmission Control Module (L8T)



3621452

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 34822-0013
- Service Connector: 85761018
- Description: 66-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

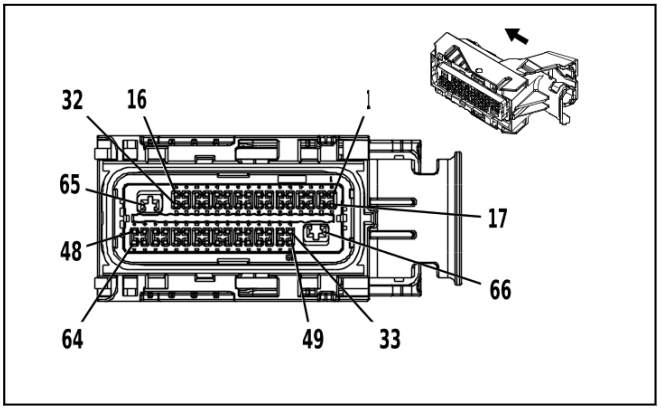
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-213
II	19368324	J-35616-35 (VT)	J-38125-11A

K71 Transmission Control Module (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH / BU	(1) 4507	(1) Transmission Clutch H Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU	(2) 6401	(2) Clutch Solenoid Valve B Control	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN / WH	(3) 1530	(3) Transmission Line Pressure Control Solenoid Valve Control	(3) I	(3) —
4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.5	(5) GY / RD	(5) 10817	(5) Lubricant Circuit Pressure Sensor 5 Volt Reference	(5) I	(5) —
6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.5	(7) YE / GN	(7) 4170	(7) Transmission Output Shaft Speed Sensor Circuit 9V Reference	(7) I	(7) —
(8) 8	(8) 0.5	(8) YE / BU	(8) 4171	(8) Transmission Input Shaft Speed Sensor Circuit 9V Reference	(8) I	(8) —
9 - 10	—	—	—	Not Occupied	—	—
(11) 11	(11) 0.5	(11) BU / BK	(11) 10819	(11) Lubricant Circuit Pressure Sensor Low Reference	(11) I	(11) —
12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.5	(13) GN / VT	(13) 4510	(13) Transmission Intermediate Speed Signal	(13) I	(13) —
(14) 14	(14) 0.5	(14) GY / BU	(14) 6358	(14) Output Speed Signal	(14) I	(14) —
(15) 15	(15) 0.5	(15) GN / YE	(15) 6353	(15) Input Speed Signal	(15) I	(15) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.5	(17) WH	(17) 4508	(17) Transmission Clutch G Control	(17) I	(17) —
(18) 18	(18) 0.5	(18) BN	(18) 6400	(18) Clutch Solenoid Valve A Control	(18) I	(18) —
(19) 19	(19) 0.5	(19) GY	(19) 6402	(19) Clutch Solenoid Valve C Control	(19) I	(19) —
(20) 20	(20) 0.5	(20) VT / WH	(20) 422	(20) Torque Converter Clutch Solenoid Valve Control	(20) I	(20) —
(21) 21	(21) 0.5	(21) GN / WH	(21) 6380	(21) Torque Converter Clutch Enable Solenoid Valve A Control	(21) I	(21) —
(22) 22	(22) 0.5	(22) YE / BN	(22) 6210	(22) Torque Converter Clutch Enable Solenoid Valve B Control	(22) I	(22) —
23 - 27	—	—	—	Not Occupied	—	—
(28) 28	(28) 0.5	(28) BK / BN	(28) 586	(28) Transmission Fluid Temperature Sensor Low Reference	(28) I	(28) —
29 - 32	—	—	—	Not Occupied	—	—
(33) 33	(33) 0.5	(33) GN / GY	(33) 6387	(33) Transmission High Side Driver 1 Control	(33) I	(33) —
34	—	—	—	Not Occupied	—	—
(35) 35	(35) 0.5	(35) VT / BK	(35) 2139	(35) Run/Crank Ignition 1 Voltage	(35) I	(35) —
36	—	—	—	Not Occupied	—	—
(37) 37	(37) 0.5	(37) BU	(37) 2500	(37) High Speed GMLAN Serial Data [+] 1	(37) I	(37) —
(38) 38	(38) 0.5	(38) WH	(38) 2501	(38) High Speed GMLAN Serial Data [-] 1	(38) I	(38) —
39 - 44	—	—	—	Not Occupied	—	—
(45) 45	(45) 0.5	(45) GN / YE	(45) 1081 6	(45) Lubricant Circuit Pressure Sensor Signal	(45) I	(45) —
46 - 48	—	—	—	Not Occupied	—	—
(49) 49	(49) 0.5	(49) GY / BN	(49) 6388	(49) Transmission High Side Driver 2 Control	(49) I	(49) —
50	—	—	—	Not Occupied	—	—
(51) 51	(51) 0.5	(51) VT / YE	(51) 5985	(51) Accessory Wake-Up Serial Data	(51) I	(51) —
52	—	—	—	Not Occupied	—	—
(53) 53	(53) 0.5	(53) BU	(53) 2500	(53) High Speed GMLAN Serial Data [+] 1	(53) I	(53) —
(54) 54	(54) 0.5	(54) WH	(54) 2501	(54) High Speed GMLAN Serial Data [-] 1	(54) I	(54) —
55 - 62	—	—	—	Not Occupied	—	—
(63) 63	(63) 0.5	(63) BN / WH	(63) 585	(63) Transmission Fluid Temperature Sensor Signal	(63) I	(63) —
(64) 64	(64) 0.5	(64) BU / WH	(64) 3338	(64) Transmission Internal Mode Switch Mode Control X	(64) I	(64) —
(65) 65	(65) 1.5	(65) BK / WH	(65) 1551	(65) Signal Ground	(65) II	(65) —
(66) 66	(66) 1.5	(66) RD / GN	(66) 1840	(66) Battery Positive Voltage	(66) II	(66) —

K71 Transmission Control Module (LV1)



3621452

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 34822-0013
- Service Connector: 85761018
- Description: 66-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

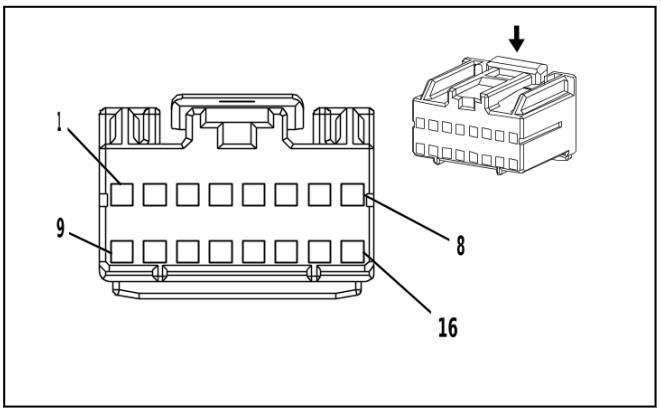
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-213
II	19368324	J-35616-35 (VT)	J-38125-11A

K71 Transmission Control Module (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH / BU	(1) 4507	(1) Transmission Clutch H Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU	(2) 6401	(2) Clutch Solenoid Valve B Control	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN / WH	(3) 1530	(3) Transmission Line Pressure Control Solenoid Valve Control	(3) I	(3) —
4	—	—	—	Not Occupied	—	—
(5) 5	(5) 0.5	(5) GY / RD	(5) 10817	(5) Lubricant Circuit Pressure Sensor 5 Volt Reference	(5) I	(5) —
6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.5	(7) YE / GN	(7) 4170	(7) Transmission Output Shaft Speed Sensor Circuit 9V Reference	(7) I	(7) —
(8) 8	(8) 0.5	(8) YE / BU	(8) 4171	(8) Transmission Input Shaft Speed Sensor Circuit 9V Reference	(8) I	(8) —
9 - 10	—	—	—	Not Occupied	—	—
(11) 11	(11) 0.5	(11) BU / BK	(11) 10819	(11) Lubricant Circuit Pressure Sensor Low Reference	(11) I	(11) —
12	—	—	—	Not Occupied	—	—
(13) 13	(13) 0.5	(13) GN / VT	(13) 4510	(13) Transmission Intermediate Speed Signal	(13) I	(13) —
(14) 14	(14) 0.5	(14) GY / BU	(14) 6358	(14) Output Speed Signal	(14) I	(14) —
(15) 15	(15) 0.5	(15) GN / YE	(15) 6353	(15) Input Speed Signal	(15) I	(15) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
16	—	—	—	Not Occupied	—	—
(17) 17	(17) 0.5	(17) WH	(17) 4508	(17) Transmission Clutch G Control	(17) I	(17) —
(18) 18	(18) 0.5	(18) BN	(18) 6400	(18) Clutch Solenoid Valve A Control	(18) I	(18) —
(19) 19	(19) 0.5	(19) GY	(19) 6402	(19) Clutch Solenoid Valve C Control	(19) I	(19) —
(20) 20	(20) 0.5	(20) VT / WH	(20) 422	(20) Torque Converter Clutch Solenoid Valve Control	(20) I	(20) —
(21) 21	(21) 0.5	(21) GN / WH	(21) 6380	(21) Torque Converter Clutch Enable Solenoid Valve A Control	(21) I	(21) —
(22) 22	(22) 0.5	(22) YE / BN	(22) 6210	(22) Torque Converter Clutch Enable Solenoid Valve B Control	(22) I	(22) —
23 - 27	—	—	—	Not Occupied	—	—
(28) 28	(28) 0.5	(28) BK / BN	(28) 586	(28) Transmission Fluid Temperature Sensor Low Reference	(28) I	(28) —
29 - 32	—	—	—	Not Occupied	—	—
(33) 33	(33) 0.5	(33) GN / GY	(33) 6387	(33) Transmission High Side Driver 1 Control	(33) I	(33) —
34	—	—	—	Not Occupied	—	—
(35) 35	(35) 0.5	(35) VT / BK	(35) 2139	(35) Run/Crank Ignition 1 Voltage	(35) I	(35) —
36	—	—	—	Not Occupied	—	—
(37) 37	(37) 0.5	(37) BU	(37) 2500	(37) High Speed GMLAN Serial Data [+] 1	(37) I	(37) —
(38) 38	(38) 0.5	(38) WH	(38) 2501	(38) High Speed GMLAN Serial Data [-] 1	(38) I	(38) —
39 - 44	—	—	—	Not Occupied	—	—
(45) 45	(45) 0.5	(45) GN / YE	(45) 10816	(45) Lubricant Circuit Pressure Sensor Signal	(45) I	(45) —
46 - 48	—	—	—	Not Occupied	—	—
(49) 49	(49) 0.75	(49) GY / BN	(49) 6388	(49) Transmission High Side Driver 2 Control	(49) I	(49) —
50	—	—	—	Not Occupied	—	—
(51) 51	(51) 0.5	(51) VT / YE	(51) 5985	(51) Accessory Wake-Up Serial Data	(51) I	(51) —
52	—	—	—	Not Occupied	—	—
(53) 53	(53) 0.5	(53) BU	(53) 2500	(53) High Speed GMLAN Serial Data [+] 1	(53) I	(53) —
(54) 54	(54) 0.5	(54) WH	(54) 2501	(54) High Speed GMLAN Serial Data [-] 1	(54) I	(54) —
55 - 62	—	—	—	Not Occupied	—	—
(63) 63	(63) 0.5	(63) BN / WH	(63) 585	(63) Transmission Fluid Temperature Sensor Signal	(63) I	(63) —
(64) 64	(64) 0.5	(64) BU / WH	(64) 3338	(64) Transmission Internal Mode Switch Mode Control X	(64) I	(64) —
(65) 65	(65) 1.5	(65) BK / WH	(65) 1551	(65) Signal Ground	(65) II	(65) —
(66) 66	(66) 1.5	(66) RD / GN	(66) 1840	(66) Battery Positive Voltage	(66) II	(66) —

K73 Telematics Communication Interface Control Module X1



1471689

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15431362
- Service Connector: 15306351
- Description: 16-Way F 100A Micro-Pack Series(NA)

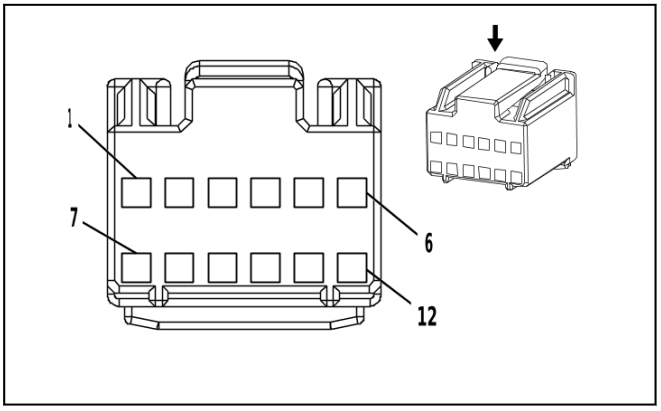
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575548	J-35616-16 (L-GN)	J-38125-559

K73 Telematics Communication Interface Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN	(1) 5060	(1) Low Speed GMLAN Serial Data	(1) I	(1) —
(2) 2	(2) 0.8	(2) BN / WH	(2) 2517	(2) Telematics Switch Red LED Indicator Control	(2) I	(2) —
(3) 3	(3) 0.8	(3) YE / BK	(3) 2516	(3) Telematics Switch Green LED Indicator Control	(3) I	(3) —
4 - 5	—	—	—	Not Occupied	—	—
(6) 6	(6) 0.8	(6) GN / BK	(6) 2515	(6) Telematics Switch Supply Voltage	(6) I	(6) —
(7) 7	(7) 0.8	(7) BK / WH	(7) 351	(7) Signal Ground	(7) I	(7) —
8 - 9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.5	(10) BU	(10) 2500	(10) High Speed GMLAN Serial Data [+] 1	(10) I	(10) —
(11) 11	(11) 0.8	(11) GN / WH	(11) 2514	(11) Telematics Switch Signal	(11) I	(11) —
(12) 12	(12) 0.5	(12) WH	(12) 2501	(12) High Speed GMLAN Serial Data [-] 1	(12) I	(12) —
13 - 14	—	—	—	Not Occupied	—	—
(15) 15	(15) 0.8	(15) RD / WH	(15) 3240	(15) Battery Positive Voltage	(15) I	(15) —
16	—	—	—	Not Occupied	—	—

K73 Telematics Communication Interface Control Module X2



1471691

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15431365
- Service Connector: 88952886
- Description: 12-Way F 100A Micro-Pack Series(NA)

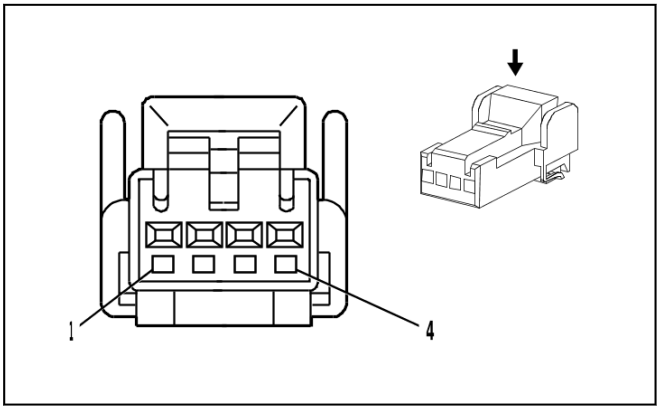
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578873	J-35616-64B (L-BU)	J-38125-559

K73 Telematics Communication Interface Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.8	(1) BU	(1) 658	(1) Cellular Telephone Voice Signal	(1) I	(1) —
(2) 2	(2) 0.8	(2) BU / BK	(2) 659	(2) Cellular Telephone Voice Low Reference	(2) I	(2) —
(3) 3	(3) 0.5	(3) BU	(3) 2500	(3) High Speed GMLAN Serial Data [+] 1	(3) I	(3) —
(4) 4	(4) 0.5	(4) WH	(4) 2501	(4) High Speed GMLAN Serial Data [-] 1	(4) I	(4) —
5 - 7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.8	(8) BARE	(8) 1792	(8) Low Reference	(8) I	(8) —
(9) 9	(9) 0.8	(9) GY	(9) 655	(9) Cellular Telephone Microphone Signal	(9) I	(9) —
(10) 10	(10) 0.8	(10) GN	(10) 654	(10) Cellular Telephone Microphone Low Reference	(10) I	(10) —
11 - 12	—	—	—	Not Occupied	—	—

K77 Remote Control Door Lock Receiver



1673483

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: IL-AG5-4S-S3C1
- Service Connector: 13585474
- Description: 4-Way F IL-AG5 Series(GN)

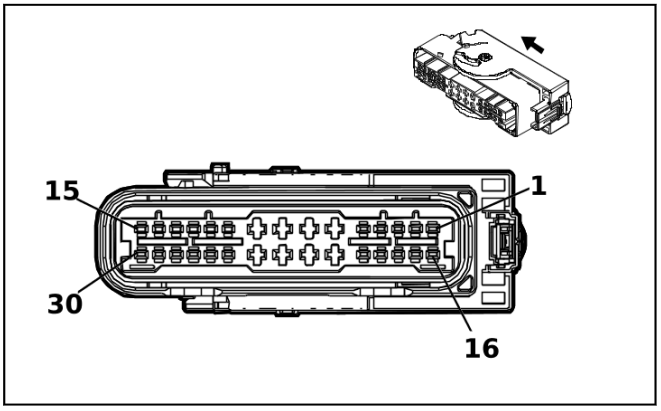
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) RD / WH	(1) 5340	(1) Battery Positive Voltage	(1) I	(1) —
(2) 2	(2) 0.35	(2) GN	(2) 5060	(2) Low Speed GMLAN Serial Data	(2) I	(2) —
3	—	—	—	Not Occupied	—	—
(4) 4	(4) 0.35	(4) BK / WH	(4) 351	(4) Signal Ground	(4) I	(4) —

K111 Fuel Pump Driver Control Module



3240109

Connector Part Information

- Harness Type: Chassis Wiring Harness
- OEM Connector: 5-2109446-2
- Service Connector: Service by Harness - See Part Catalog
- Description: 30-Way F 1.5, 2.8 MCP Series, Sealed(BK)

Terminal Part Information

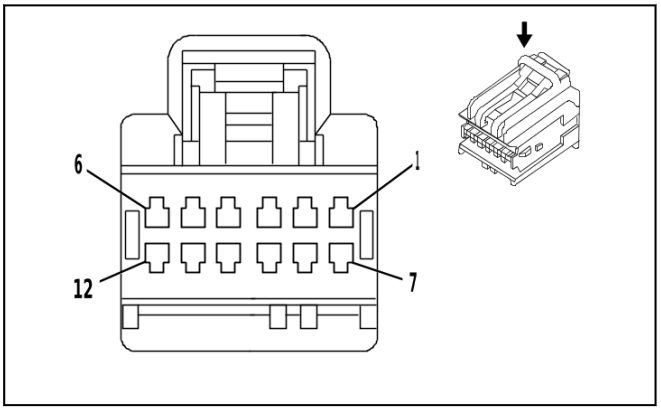
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required

K111 Fuel Pump Driver Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 2.5	(7) RD / VT	(7) 1940	(7) Battery Positive Voltage	(7) II	(7) —
(8) 8	(8) 2.5	(8) GY	(8) 120	(8) Fuel Pump Control	(8) II	(8) —
(9) 9	(9) 2.5	(9) YE / GY	(9) 4137	(9) Fuel Pump Supply Voltage Phase 2	(9) II	(9) —
(10) 10	(10) 0.5	(10) YE / RD	(10) 2709	(10) Fuel Tank Pressure Sensor 5V Reference	(10) I	(10) —
(11) 11	(11) 0.5	(11) BU / WH	(11) 890	(11) Fuel Tank Pressure Sensor Signal	(11) I	(11) —
(12) 12	(12) 0.5	(12) BN / RD	(12) 7445	(12) Fuel Line Pressure Sensor 5V Reference	(12) I	(12) —
(13) 13	(13) 0.5	(13) BU / VT	(13) 1589	(13) Primary Fuel Level Sensor Signal	(13) I	(13) —
14	—	—	—	Not Occupied	—	—
(15) 15	(15) 0.5	(15) WH	(15) 4499	(15) High Speed GMLAN Serial Data [-] 7	(15) I	(15) —
(16) 16	(16) 0.5	(16) VT / GN	(16) 4320	(16) Powertrain Sensor Bus Enable	(16) I	(16) —
(17) 17	(17) 0.5	(17) VT	(17) 2739	(17) Run/Crank Ignition 1 Voltage	(17) I	(17) —
(18) 18	(18) 0.5	(18) GN / GY	(18) 465	(18) Fuel Pump Primary Relay Control	(18) I	(18) —

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19 - 20	—	—	—	Not Occupied	—	—
(21) 21	(21) 0.5	(21) WH	(21) 1310	(21) EVAP Vent Solenoid Valve Control	(21) III	(21) —
(22) 22	(22) 2.5	(22) BK	(22) 2150	(22) Ground	(22) II	(22) —
(23) 23	(23) 0.5	(23) BK	(23) 7444	(23) Fuel Pump Assembly Shield Ground	(23) III	(23) —
(24) 24	(24) 2.5	(24) WH / BN	(24) 4138	(24) Fuel Pump Supply Voltage Phase 3	(24) II	(24) —
(25) 25	(25) 0.5	(25) BK / BN	(25) 6284	(25) Fuel Tank Pressure Sensor Low Reference	(25) I	(25) —
(26) 26	(26) 0.5	(26) BU / WH	(26) 7446	(26) Fuel Pressure Sensor Signal	(26) I	(26) —
(27) 27	(27) 0.5	(27) BK / YE	(27) 7447	(27) Fuel Pressure Sensor Low Reference	(27) I	(27) —
(28) 28	(28) 0.5	(28) BK / GN	(28) 6281	(28) Fuel Level Sensor Low Reference	(28) I	(28) —
29	—	—	—	Not Occupied	—	—
(30) 30	(30) 0.5	(30) BU / BN	(30) 4498	(30) High Speed GMLAN Serial Data [+] 7	(30) I	(30) —

K182 Parking Assist Control Module X1 (UD7)



1664569

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 13784026
- Service Connector: 13525987
- Description: 12-Way F 0.64 Series(BK)

Terminal Part Information

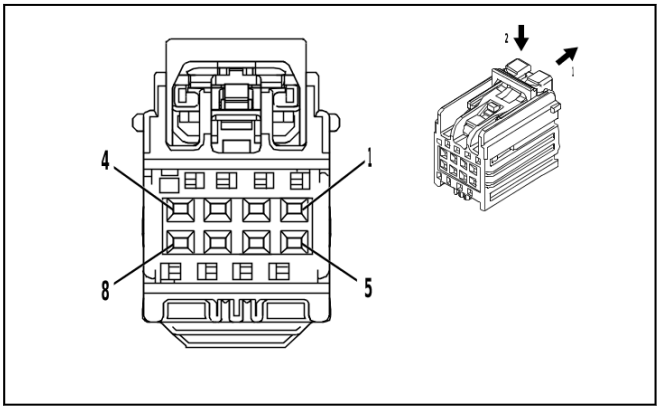
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575550	J-35616-64B (L-BU)	J-38125-559

K182 Parking Assist Control Module X1 (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) RD / WH	(1) 840	(1) Battery Positive Voltage	(1) I	(1) —
2 - 5	—	—	—	Not Occupied	—	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(6) 6	(6) 0.35	(6) GN	(6) 5060	(6) Low Speed GMLAN Serial Data	(6) I	(6) —
(7) 7	(7) 0.5	(7) BK / WH	(7) 351	(7) Signal Ground	(7) I	(7) —
8 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X2 (UD7)



4280711

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 7289-2895-40
- Service Connector: 19355209
- Description: 8-Way F 0.64 Kaizen Series(GY)

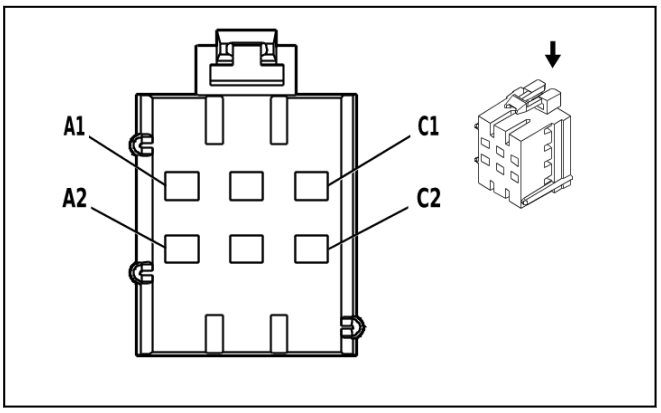
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K182 Parking Assist Control Module X2 (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) YE / VT	(1) 2378	(1) Right Rear Outer Parking Assist Sensor Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) YE / WH	(2) 2377	(2) Right Rear Middle Parking Assist Sensor Signal	(2) I	(2) —
(3) 3	(3) 0.5	(3) YE / BU	(3) 2376	(3) Left Rear Middle Parking Assist Sensor Signal	(3) I	(3) —
(4) 4	(4) 0.5	(4) BN / WH	(4) 2374	(4) Object Sensor Voltage Reference	(4) I	(4) —
(5) 5	(5) 0.5	(5) YE	(5) 2375	(5) Left Rear Outer Parking Assist Sensor Signal	(5) I	(5) —
6 - 7	—	—	—	Not Occupied	—	—
(8) 8	(8) 0.5	(8) BK / GY	(8) 2379	(8) Object Sensor Low Reference	(8) I	(8) —

KR32B Blower Motor High Speed Relay - Auxiliary



309518

Connector Part Information

- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12129715
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Flexlock Series(GY)

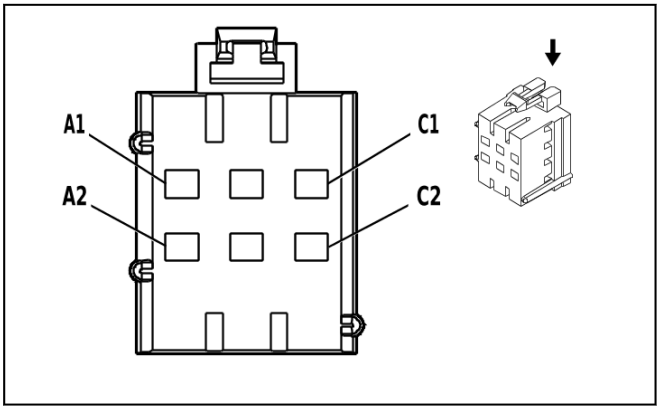
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

KR32B Blower Motor High Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
A2	5	YE	1172	Auxiliary Blower Motor Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD / WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR32C Blower Motor Low Speed Relay - Auxiliary



309518

Connector Part Information

- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12129715
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Flexlock Series(GY)

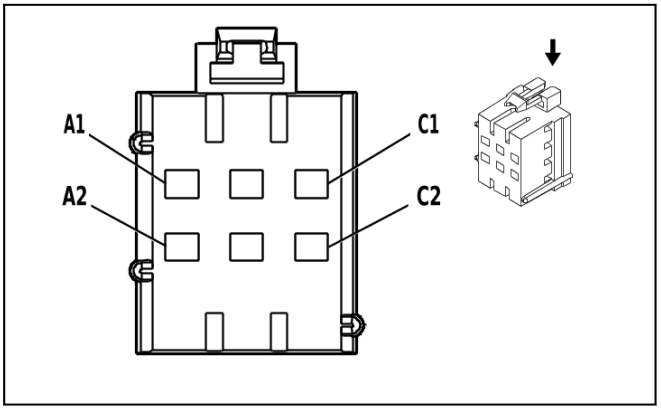
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

KR32C Blower Motor Low Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
A2	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD / WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR32D Blower Motor Medium Speed Relay - Auxiliary



309518

Connector Part Information

- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12129715
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Flexlock Series(GY)

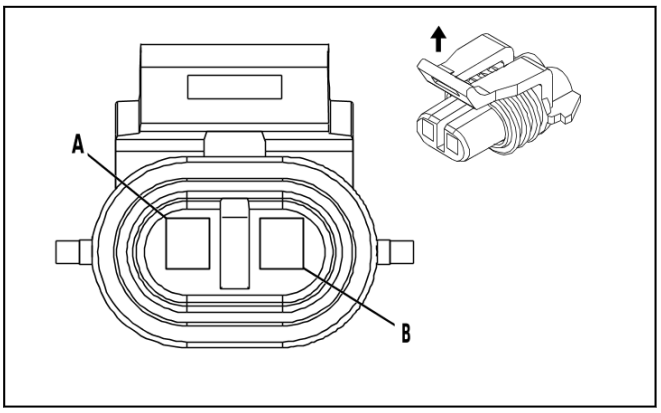
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

KR32D Blower Motor Medium Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
A2	3	BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD / WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR81 Auxiliary Battery Relay 1 X1 (L8T)



635009

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 12052641
- Service Connector: 13586114
- Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

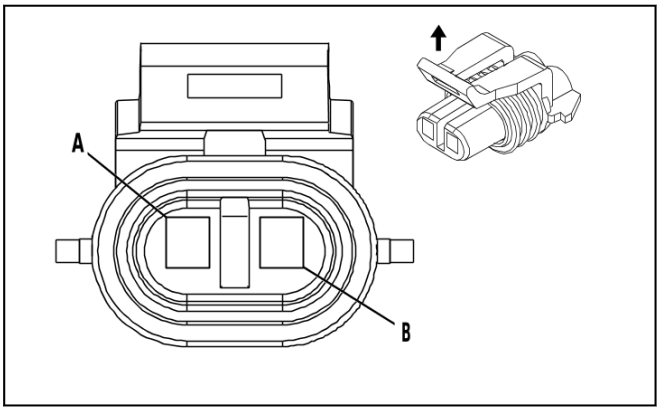
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

KR81 Auxiliary Battery Relay 1 X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD / WH	4892	Auxiliary Battery Relay Control	I	—
B	0.75	BK / WH	1551	Signal Ground	I	—

KR81 Auxiliary Battery Relay 1 X1 (LV1)



635009

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 12052641
- Service Connector: 13586114
- Description: 2-Way F 150 Metri-Pack Series, Sealed(BK)

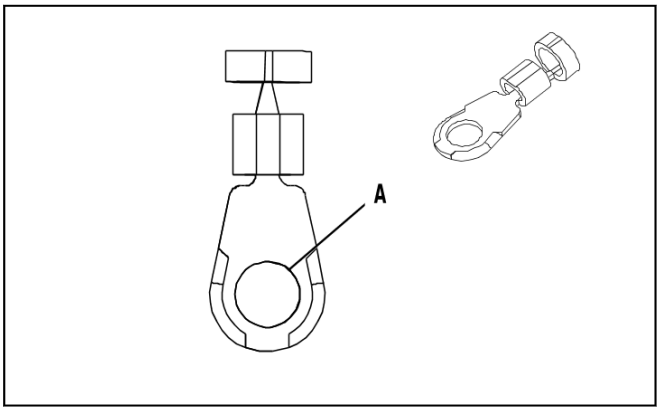
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

KR81 Auxiliary Battery Relay 1 X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD / WH	4892	Auxiliary Battery Relay Control	I	—
B	0.75	BK / WH	1551	Signal Ground	I	—

KR81 Auxiliary Battery Relay 1 X2 (LV1 / L8T)



3385519

Connector Part Information
- Harness Type: Battery Positive Cable
- OEM Connector: 12146365
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

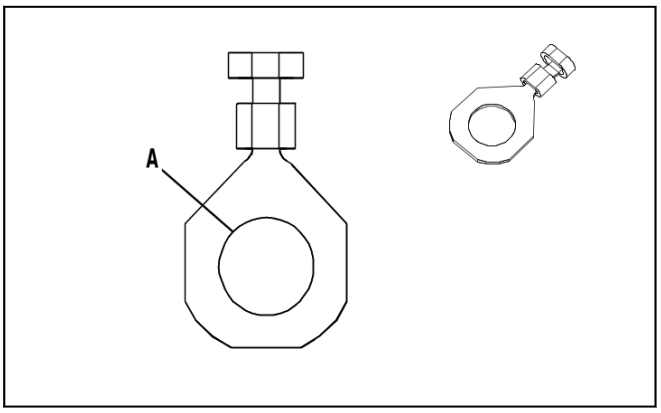
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X2 (LV1 / L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (9L7)



3240148

Connector Part Information
- Harness Type: Accessory Wiring Harness
- OEM Connector: 12103504
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

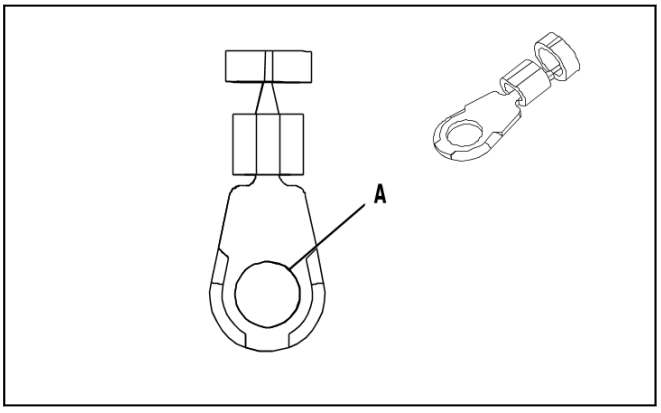
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (9L7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD	102	Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (LV1 / L8T)



3385519

Connector Part Information
- Harness Type: Auxiliary Battery Positive Cable
- OEM Connector: 12146365
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

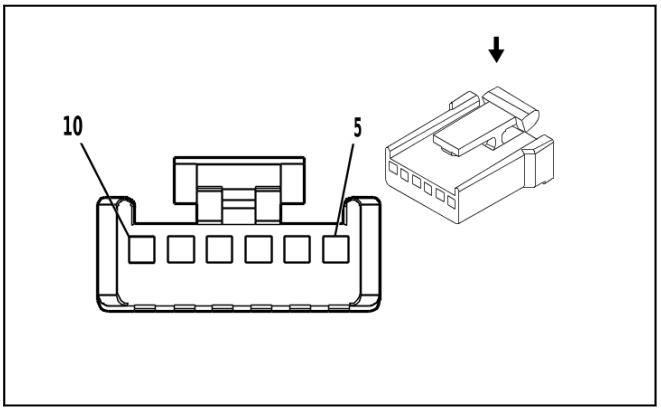
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

KR81 Auxiliary Battery Relay 1 X3 (LV1 / L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

M6 Air Temperature Door Actuator



281207

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12040953
- Service Connector: 12102632
- Description: 6-Way F 100 Micro-Pack Series(BK)

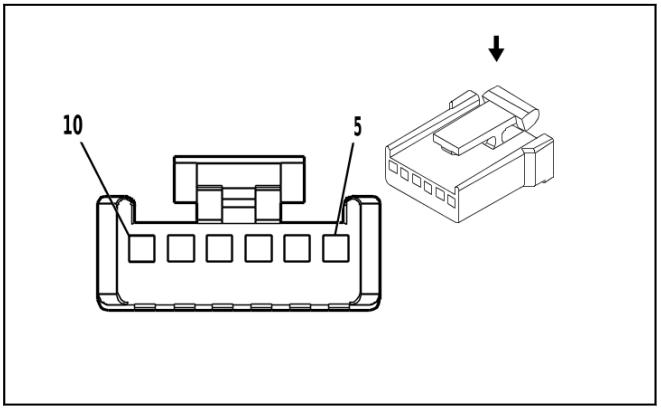
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-6 (BN)	No Tool Required

M6 Air Temperature Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 1	(7) BK	(7) 550	(7) Ground	(7) I	(7) —
(8) 8	(8) 0.8	(8) BU	(8) 733	(8) Air Temperature Door Position Signal	(8) I	(8) —
9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.35	(10) BN	(10) 341	(10) Run Ignition 3 Voltage	(10) I	(10) —

M6B Air Temperature Door Actuator - Auxiliary



281207

Connector Part Information

- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12040953
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 100 Micro-Pack Series(BK)

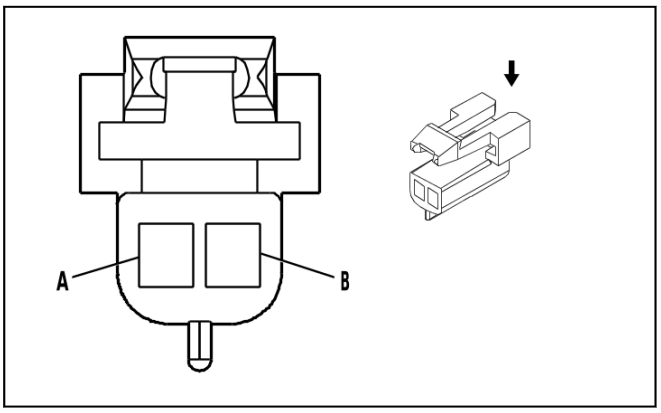
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-6 (BN)	No Tool Required

M6B Air Temperature Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.35	(7) BK	(7) 850	(7) Ground	(7) I	(7) —
(8) 8	(8) 0.35	(8) OG	(8) 2775	(8) Rear Air Temperature Door Actuator Control	(8) I	(8) —
9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.35	(10) BN	(10) 341	(10) Run Ignition 3 Voltage	(10) I	(10) —

M7 Transmission Shift Lock Control Solenoid Actuator



280768

Connector Part Information
- Harness Type: Steering Column
- OEM Connector: 12052832
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

M7 Transmission Shift Lock Control Solenoid Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	TN / WH	816	Brake Transmission Shift Interlock Solenoid Actuator Control	I	—
B	—	BK	350	Ground	I	—

M8 Blower Motor

—

Connector Part Information
- Harness Type: HVAC
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way

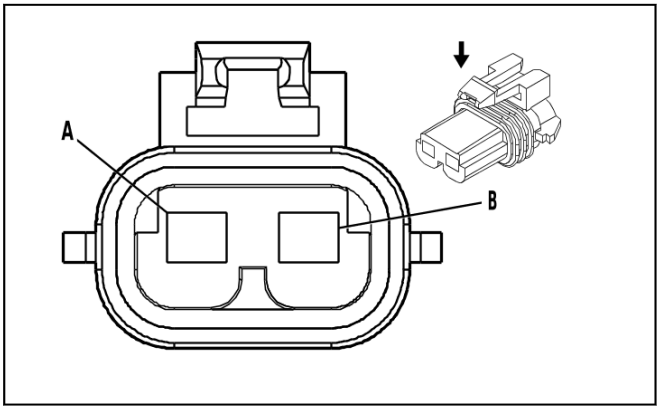
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M8 Blower Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	1250	Ground	I	—
B	—	RD	65	Blower Motor Control	I	—

M8B Blower Motor - Auxiliary



684799

Connector Part Information
- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12077900
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

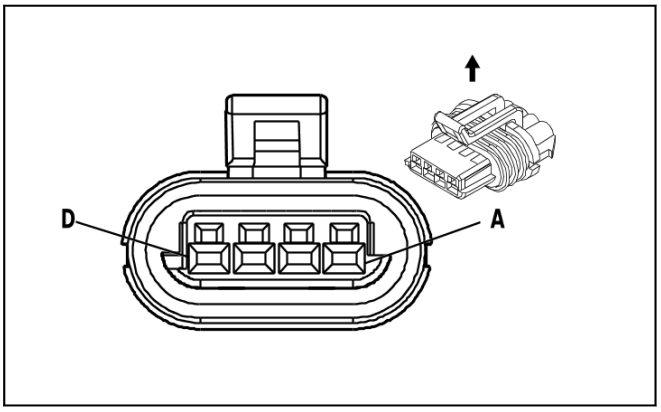
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M8B Blower Motor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	BK	850	Ground	I	—
B	5	YE	1172	Auxiliary Blower Motor Control	I	—

M13 Door Latch Assembly - Rear Cargo X1



655858

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 15336846
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 150 GT Series, Sealed(BU)

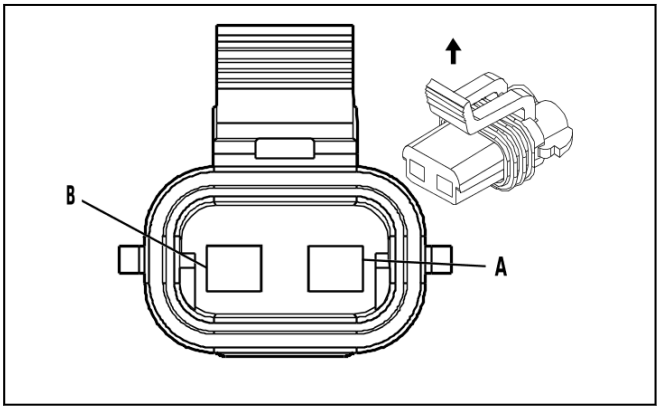
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK / WH	1051	Signal Ground	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	PK / BK	1303	Liftgate Ajar Switch Signal 1	I	—
D	0.35	GN	5926	Rear Body Opening Open Switch Signal	I	—

M13 Door Latch Assembly - Rear Cargo X2



68721

Connector Part Information

- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 15300027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

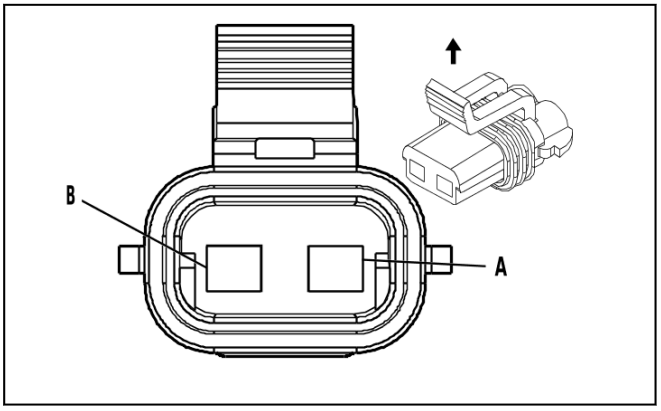
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M13 Door Latch Assembly - Rear Cargo X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	TN / BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (E24)



68721

Connector Part Information
- Harness Type: Rear Side Door Wiring Harness
- OEM Connector: 15300027
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

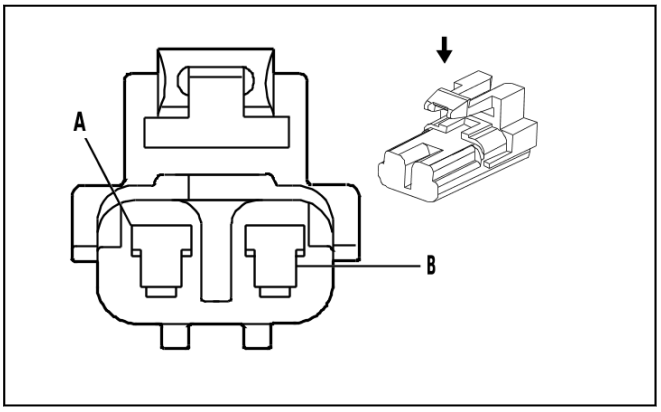
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (YA2)



62488

Connector Part Information
- Harness Type: Rear Side Door Wiring Harness
- OEM Connector: 12084957
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 280 Metri-Pack Series(BK)

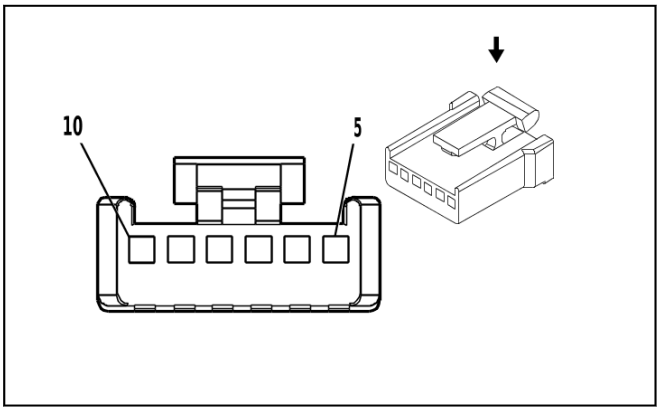
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M14RR Door Lock Actuator - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GY	295	Door Lock Actuator Lock Control	I	—
B	0.8	TN	294	Door Lock Actuator Unlock Control	I	—

M37B Mode Door Actuator - Auxiliary



281207

Connector Part Information

- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12040953
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 100 Micro-Pack Series(BK)

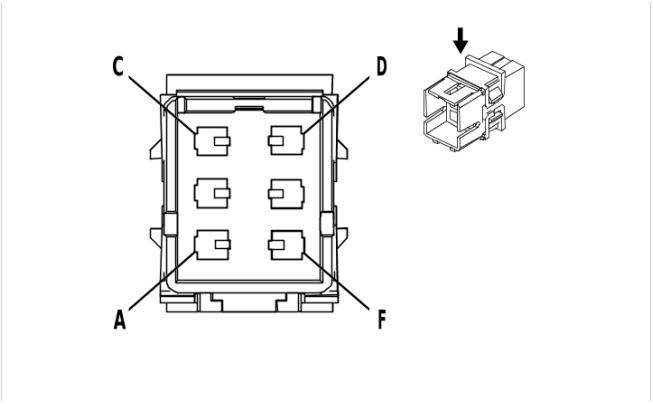
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-6 (BN)	No Tool Required

M37B Mode Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.35	(7) BK	(7) 850	(7) Ground	(7) I	(7) —
(8) 8	(8) 0.35	(8) GY	(8) 2599	(8) Rear Mode Door Actuator Signal	(8) I	(8) —
9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.35	(10) BN	(10) 341	(10) Run Ignition 3 Voltage	(10) I	(10) —

M49D Seat Motor Assembly - Driver (AG1)



2684011

Connector Part Information

- Harness Type: Driver Seat Motor Jumper
- OEM Connector: 12015345
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M Weather Pack Series, Sealed(BK)

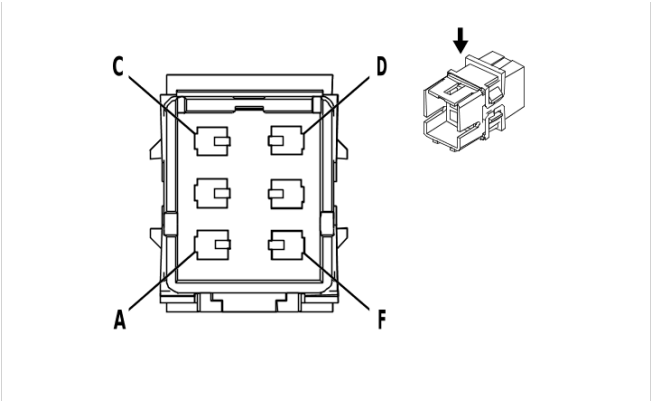
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M49D Seat Motor Assembly - Driver (AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
B	—	BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
C	—	TN	285	Driver Seat Horizontal Motor Forward Control	I	—
D	—	GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
E	—	GN	286	Driver Seat Front Vertical Motor Up Control	I	—
F	—	BU	287	Driver Seat Front Vertical Motor Down Control	I	—

M49P Seat Motor Assembly - Passenger (AG2)



2684011

Connector Part Information

- Harness Type: Passenger Seat Motor Jumper
- OEM Connector: 12015345
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M Weather Pack Series, Sealed(BK)

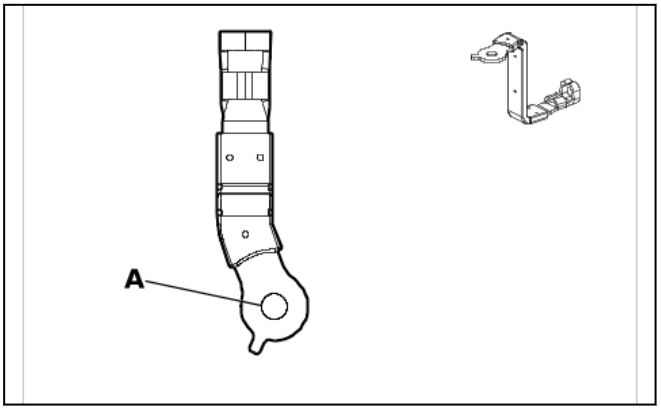
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M49P Seat Motor Assembly - Passenger (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	YE	288	Passenger Seat Rear Vertical Motor Up Control	I	—
B	—	BU	289	Passenger Seat Rear Vertical Motor Down Control	I	—
C	—	TN	296	Passenger Seat Horizontal Motor Forward Control	I	—
D	—	GN	290	Passenger Seat Horizontal Motor Rearward Control	I	—
E	—	GN	297	Passenger Seat Front Vertical Motor Up Control	I	—
F	—	BU	298	Passenger Seat Front Vertical Motor Down Control	I	—

M64 Starter Motor X1 (L8T)



6056268

Connector Part Information
- Harness Type: Battery Positive Cable
- OEM Connector: 35592441
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

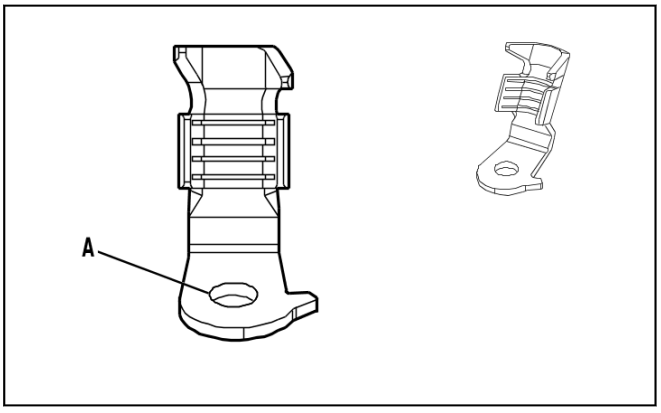
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X1 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X1 (LV1)



4937583

Connector Part Information
- Harness Type: Battery Positive Cable
- OEM Connector: 35116268
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way Ring Terminal

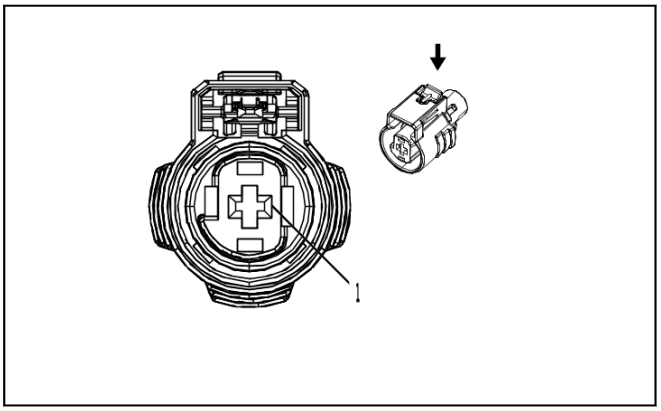
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X2



2717134

Connector Part Information

- Harness Type: Starter Motor Jumper Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way

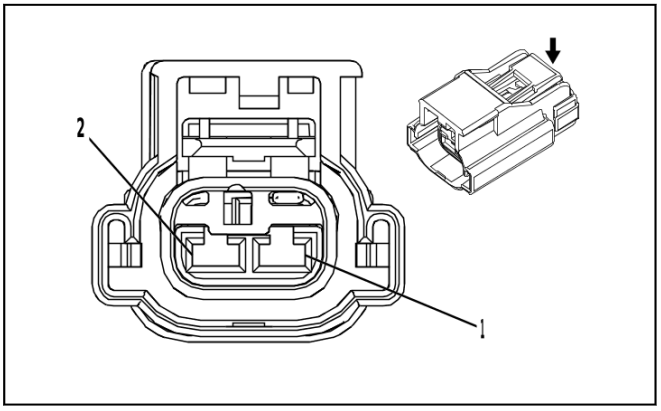
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter Motor X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) —	(1) YE	(1) 6	(1) Starter Solenoid Crank Ignition Voltage	(1) I	(1) —

M74D Window Motor - Driver



3372003

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 13896059
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 APEX Series, Sealed(BK)

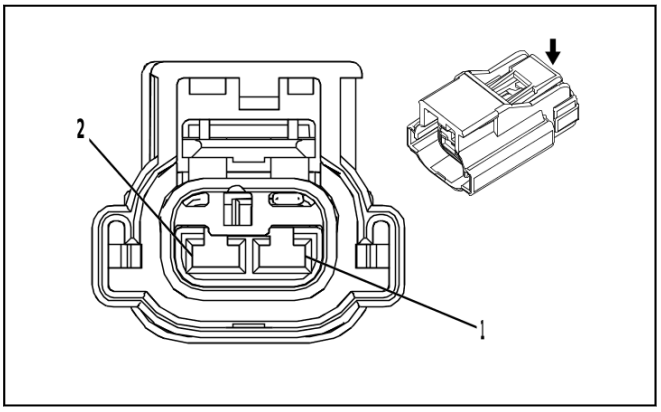
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M74D Window Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 3	(1) BU	(1) 164	(1) Left Front Window Motor Up Control	(1) I	(1) —
(2) 2	(2) 3	(2) BN	(2) 165	(2) Left Front Window Motor Down Control	(2) I	(2) —

M74P Window Motor - Passenger



3372003

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 13896059
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 2.8 APEX Series, Sealed(BK)

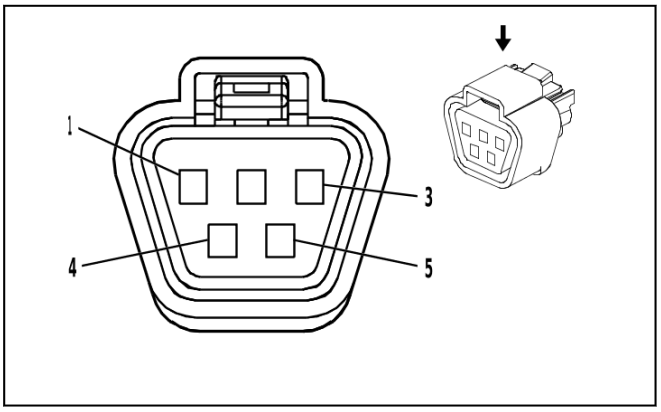
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M74P Window Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 3	(1) BU	(1) 666	(1) Right Front Window Motor Up Control	(1) I	(1) —
(2) 2	(2) 3	(2) BN	(2) 667	(2) Right Front Window Motor Down Control	(2) I	(2) —

M75 Windshield Wiper Motor



1715213

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 6189-0587
- Service Connector: 13587179
- Description: 5-Way F 090 Series, Sealed(BK)

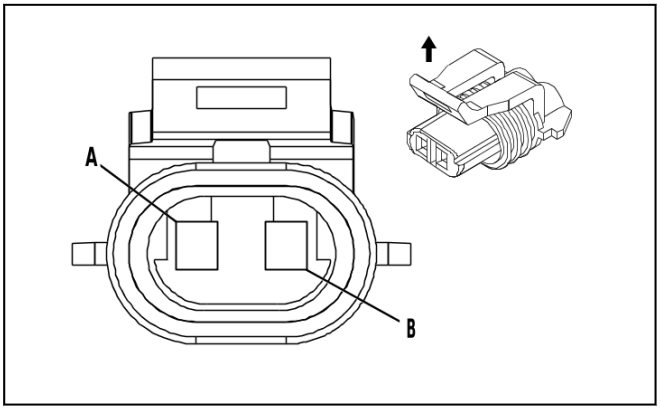
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-18 (BK)	No Tool Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 2	(1) GN	(1) 95	(1) Windshield Wiper Motor Low Speed Control	(1) II	(1) —
(2) 2	(2) 0.35	(2) BK / WH	(2) 351	(2) Signal Ground	(2) I	(2) —
(3) 3	(3) 0.35	(3) YE	(3) 196	(3) Windshield Wiper Motor Park Switch Signal	(3) I	(3) —
(4) 4	(4) 2	(4) PU	(4) 92	(4) Windshield Wiper Motor High Speed Control	(4) II	(4) —
(5) 5	(5) 2	(5) BK	(5) 1250	(5) Ground	(5) II	(5) —

P13 Horn Assembly



537107

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 12052644
- Service Connector: 19368034
- Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

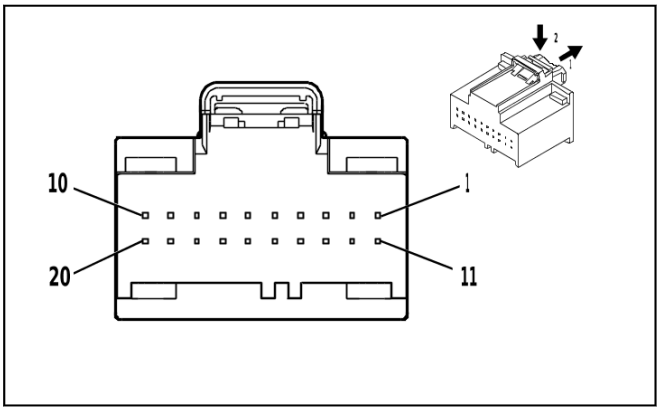
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P13 Horn Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	BK	1250	Ground	I	—
B	1	BN / GY	29	Horn Control	I	—

P16 Instrument Cluster



5112891

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 31410-0205
- Service Connector: 13525990
- Description: 20-Way F 0.64 Series(BK)

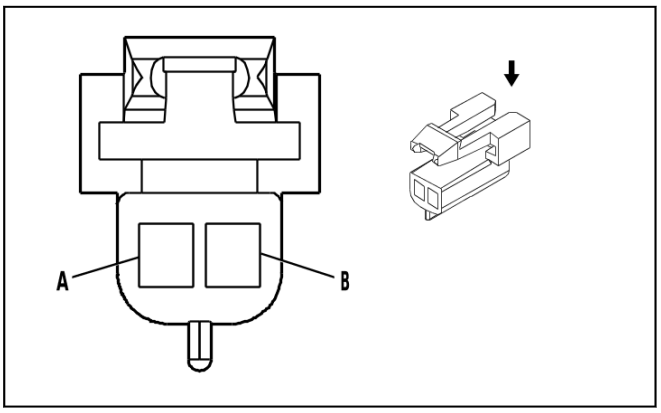
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

P16 Instrument Cluster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) GN	(1) 5060	(1) Low Speed GMLAN Serial Data	(1) I	(1) —
2 - 3	—	—	—	Not Occupied	—	—
(4) 4	(4) 0.5	(4) BN / WH	(4) 419	(4) Check Engine Indicator Control	(4) I	(4) —
5	—	—	—	Not Occupied	—	—
(6) 6	(6) 0.35	(6) GY / YE	(6) 3885	(6) Forward Collision Alert LED Control	(6) I	(6) —
(7) 7	(7) 0.35	(7) BK / WH	(7) 351	(7) Signal Ground	(7) I	(7) —
(8) 8	(8) 0.35	(8) WH / GN	(8) 3535	(8) Reflected LED Display Dimming Control	(8) I	(8) —
9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.5	(10) BU / GY	(10) 636	(10) Ambient Air Temperature Sensor Signal	(10) I	(10) —
(11) 11	(11) 0.5	(11) BK / BU	(11) 61	(11) Ambient Air Temperature Sensor Low Reference	(11) I	(11) —
(12) 12	(12) 0.35	(12) BU	(12) 2307	(12) Passenger Air Bag On Indicator Control	(12) I	(12) —
(13) 13	(13) 0.35	(13) GN	(13) 2308	(13) Passenger Air Bag Off Indicator Control	(13) I	(13) —
(14) 14	(14) 0.5	(14) TN / WH	(14) 33	(14) Brake Warning Indicator Control	(14) I	(14) —
(15) 15	(15) 0.75	(15) GN / GY	(15) 333	(15) Brake Fluid Level Signal	(15) I	(15) —
(16) 16	(16) 0.35	(16) PK	(16) 893	(16) Driver Information Center Select Menu Switch Signal	(16) I	(16) —
(17) 17	(17) 0.35	(17) GN / WH	(17) 1358	(17) Driver Information Center Switch Signal	(17) I	(17) —
(18) 18	(18) 0.35	(18) BN	(18) 897	(18) Driver Information Center Switch Low Reference	(18) I	(18) —
(19) 19	(19) 0.35	(19) PK	(19) 1639	(19) Run/Crank Ignition 1 Voltage	(19) I	(19) —
(20) 20	(20) 0.35	(20) RD / WH	(20) 2840	(20) Battery Positive Voltage	(20) I	(20) —

P19AG Speaker - Left Front Door



280768

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 12052832
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

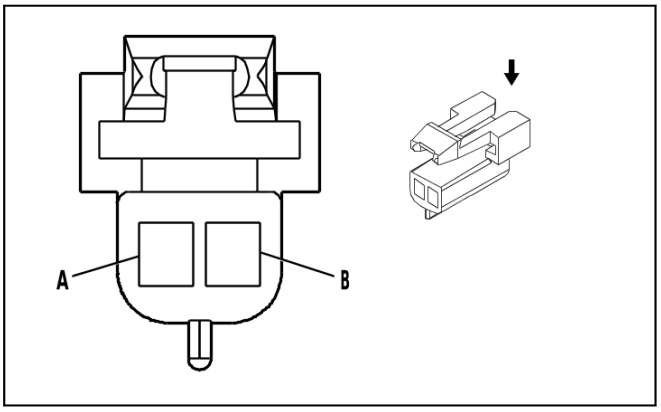
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19AG Speaker - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BU	1957	Left Front Midrange Speaker [-] Control	I	—
B	0.8	BU	1857	Left Front Midrange Speaker [+] Control	I	—

P19AH Speaker - Right Front Door



280768

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 12052832
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

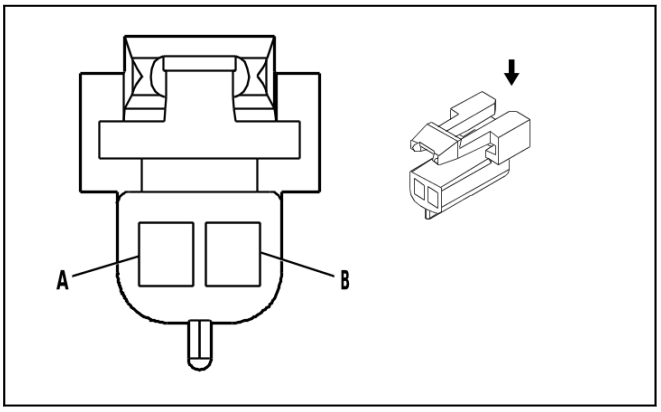
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19AH Speaker - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GN	1953	Right Front Midrange Speaker [-] Control	I	—
B	0.8	OG	1853	Right Front Midrange Speaker [+] Control	I	—

P19F Speaker - Left Rear Cargo Door



280768

Connector Part Information

- Harness Type: Rear Door Door Wiring Harness - Left
- OEM Connector: 12052832
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

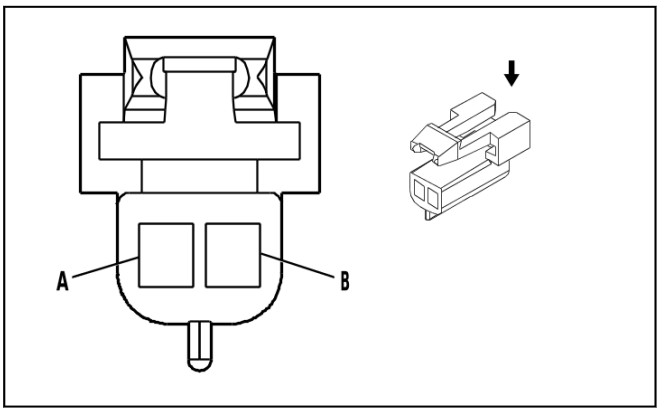
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19F Speaker - Left Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19LR Speaker - Left Rear Roof



280768

Connector Part Information
- Harness Type: Radio Rear Speaker Wiring Harness
- OEM Connector: 12052832
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

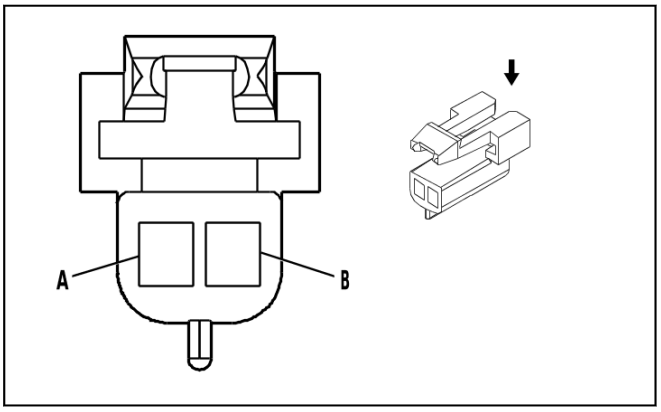
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19LR Speaker - Left Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker [-] Control	I	—
B	1	TN	1859	Left Rear Midrange Speaker [+] Control	I	—

P19RR Speaker - Right Rear Roof



280768

Connector Part Information
- Harness Type: Radio Rear Speaker Wiring Harness
- OEM Connector: 12052832
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

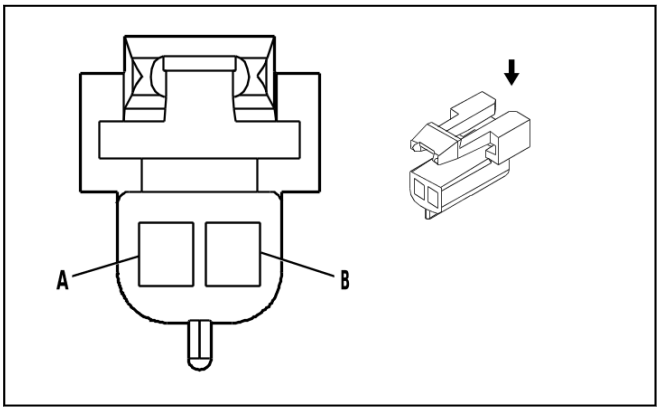
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19RR Speaker - Right Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P19T Speaker - Right Rear Cargo Door



280768

Connector Part Information

- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 12052832
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

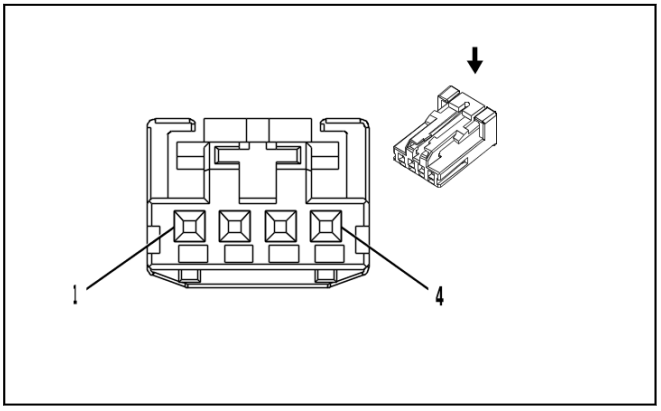
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19T Speaker - Right Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker [-] Control	I	—
B	1	TN	1855	Right Rear Midrange Speaker [+] Control	I	—

P43 Collision Alert Indicators



2717162

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 1-936119-1
- Service Connector: 19367524
- Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

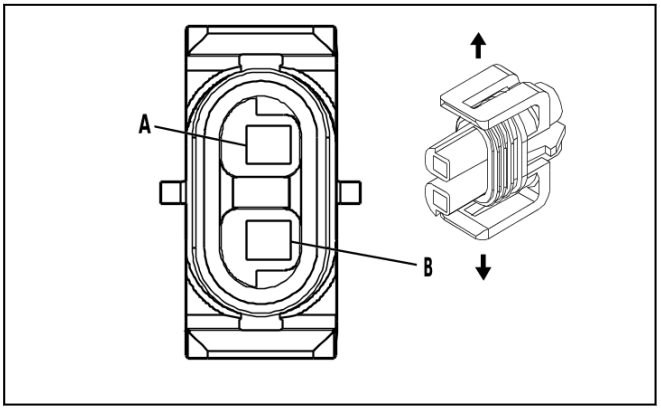
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

P43 Collision Alert Indicators

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) VT / BK	(1) 1639	(1) Run/Crank Ignition 1 Voltage	(1) I	(1) —
(2) 2	(2) 0.35	(2) GY / YE	(2) 3885	(2) Forward Collision Alert LED Control	(2) I	(2) —
(3) 3	(3) 0.35	(3) WH / GN	(3) 3535	(3) Reflected LED Display Dimming Control	(3) I	(3) —
(4) 4	(4) 0.5	(4) BK / WH	(4) 2151	(4) Signal Ground	(4) I	(4) —

Q2 A/C Compressor Clutch



684852

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 12162017
- Service Connector: 12101937
- Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

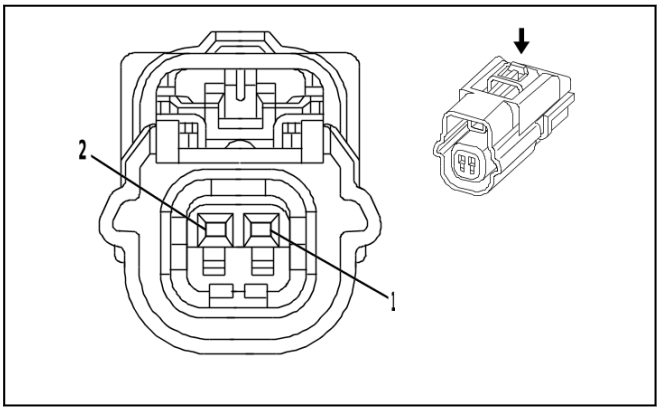
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q2 A/C Compressor Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	BK	1250	Ground	I	—
B	0.5	BN / GN	59	Air Conditioning Compressor Clutch Control	I	—

Q6 Camshaft Position Actuator Solenoid Valve



1664592

Connector Part Information
- Harness Type: Camshaft Position Sensor Wire
- OEM Connector: 54390239
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 Kaizen Series, Sealed(BK)

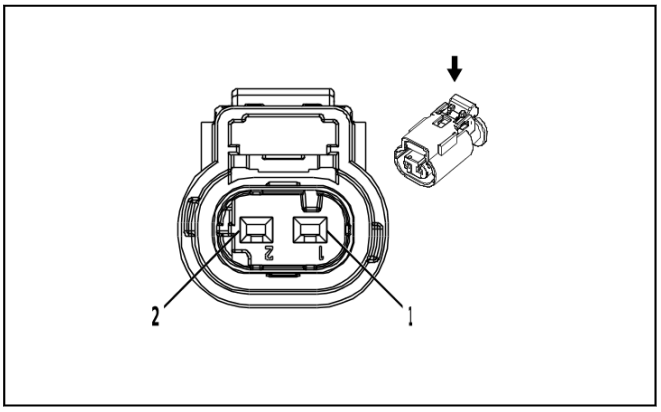
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q6 Camshaft Position Actuator Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BK / BN	(1) 6753	(1) Camshaft Position Actuator Solenoid Valve W Low Reference	(1) I	(1) —
(2) 2	(2) 0.5	(2) VT / BN	(2) 5284	(2) Intake Camshaft Position Actuator Solenoid Valve 1	(2) I	(2) —

Q12 Evaporative Emission Purge Solenoid Valve



2717066

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 10010337
- Service Connector: 13587326
- Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

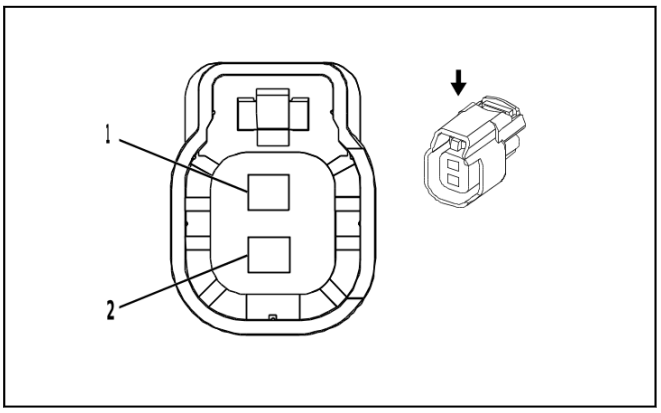
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q12 Evaporative Emission Purge Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) VT / BU	(1) 5293	(1) Powertrain Main Relay Fused Supply Voltage 4	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / BU	(2) 428	(2) EVAP Canister Purge Solenoid Control	(2) I	(2) —

Q13 Evaporative Emission Vent Solenoid Valve



2422378

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 34062-0028
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

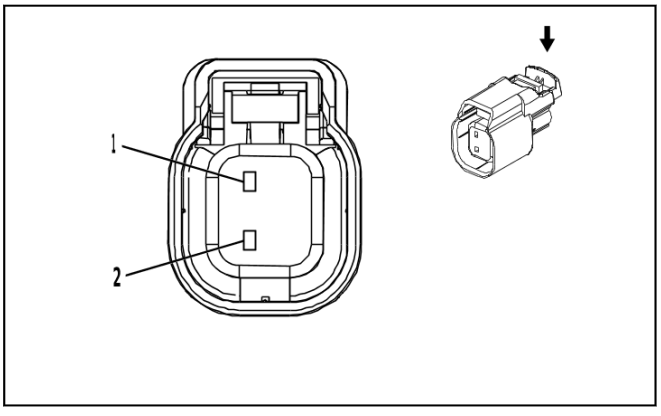
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q13 Evaporative Emission Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH	(1) 1310	(1) EVAP Vent Solenoid Valve Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) RD / GN	(2) 40	(2) Battery Positive Voltage	(2) I	(2) —

Q17A Fuel Injector 1



2792100

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

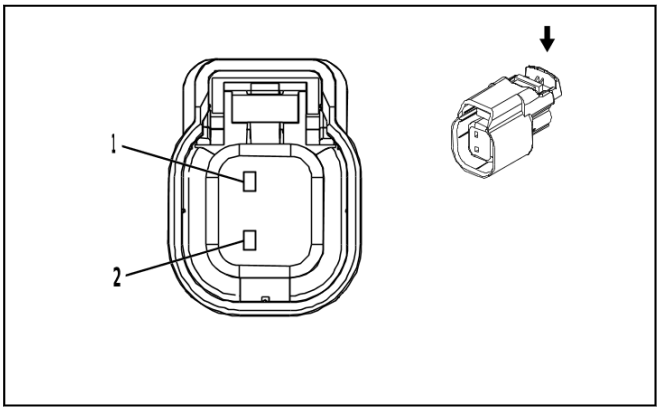
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BN / WH	(1) 4901	(1) Direct Fuel Injector High Voltage Supply Cylinder 1	(1) I	(1) —
(2) 2	(2) 0.75	(2) BN	(2) 4801	(2) Direct Fuel Injector High Voltage Control Cylinder 1	(2) I	(2) —

Q17B Fuel Injector 2



2792100

Connector Part Information

- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

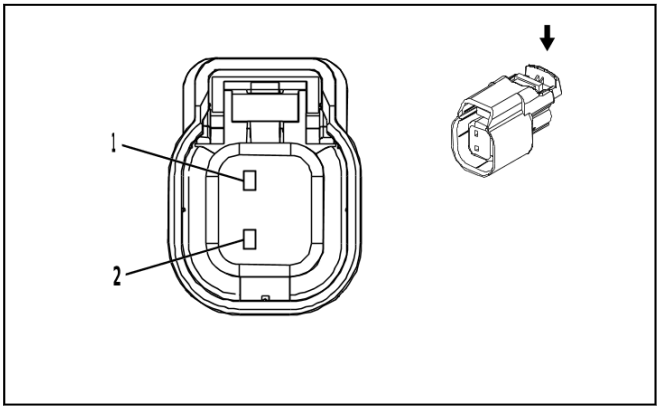
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BU / GY	(1) 4902	(1) Direct Fuel Injector High Voltage Supply Cylinder 2	(1) I	(1) —
(2) 2	(2) 0.75	(2) BU	(2) 4802	(2) Direct Fuel Injector High Voltage Control Cylinder 2	(2) I	(2) —

Q17C Fuel Injector 3



2792100

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

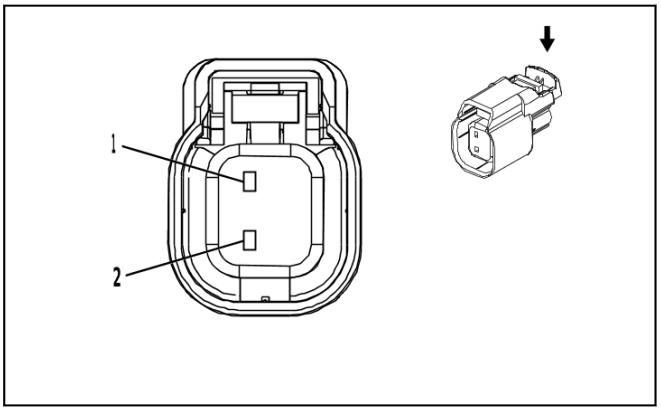
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) GN / GY	(1) 4903	(1) Direct Fuel Injector High Voltage Supply Cylinder 3	(1) I	(1) —
(2) 2	(2) 0.75	(2) GN	(2) 4803	(2) Direct Fuel Injector High Voltage Control Cylinder 3	(2) I	(2) —

Q17D Fuel Injector 4



2792100

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

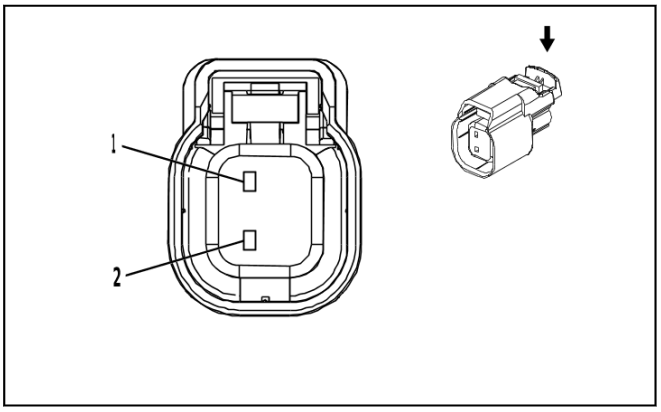
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BU / WH	(1) 4904	(1) Direct Fuel Injector High Voltage Supply Cylinder 4	(1) I	(1) —
(2) 2	(2) 0.75	(2) GY / BU	(2) 4804	(2) Direct Fuel Injector High Voltage Control Cylinder 4	(2) I	(2) —

Q17E Fuel Injector 5



2792100

Connector Part Information

- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

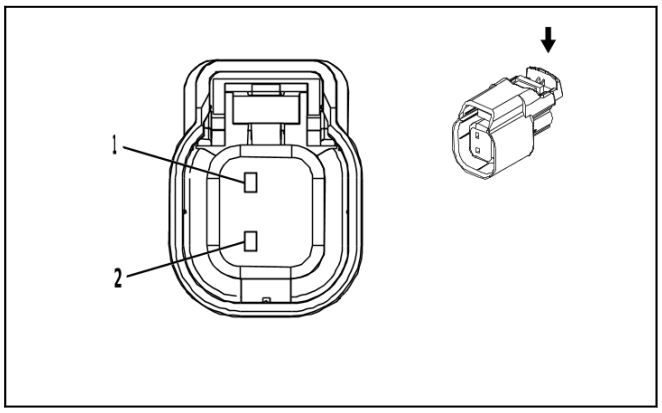
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17E Fuel Injector 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 18	(1) GN / WH	(1) 4905	(1) Direct Fuel Injector High Voltage Supply Cylinder 5	(1) I	(1) —
(2) 2	(2) 18	(2) WH / GN	(2) 4805	(2) Direct Fuel Injector High Voltage Control Cylinder 5	(2) I	(2) —

Q17F Fuel Injector 6



2792100

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

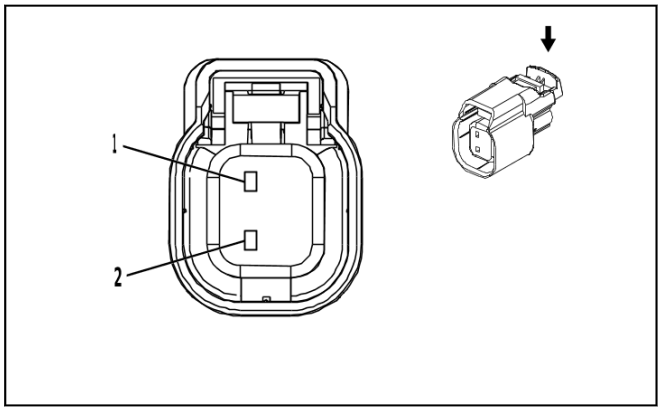
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17F Fuel Injector 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) VT / GY	(1) 4906	(1) Direct Fuel Injector High Voltage Supply Cylinder 6	(1) I	(1) —
(2) 2	(2) 0.75	(2) VT / GN	(2) 4806	(2) Direct Fuel Injector High Voltage Control Cylinder 6	(2) I	(2) —

Q17G Fuel Injector 7 (L8T)



2792100

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

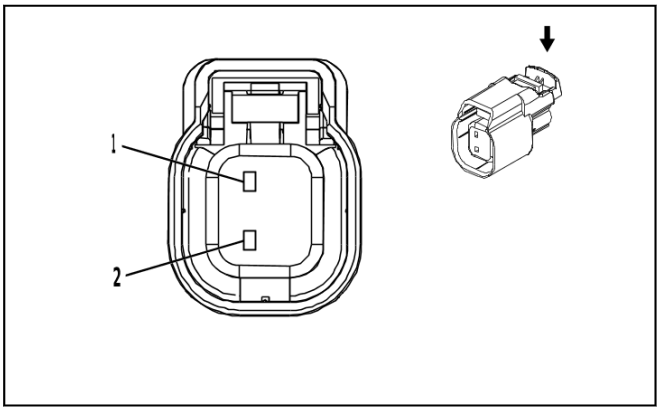
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17G Fuel Injector 7 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) WH / YE	(1) 4907	(1) Direct Fuel Injector High Voltage Supply Cylinder 7	(1) I	(1) —
(2) 2	(2) 0.75	(2) YE / GY	(2) 4807	(2) Direct Fuel Injector High Voltage Control Cylinder 7	(2) I	(2) —

Q17H Fuel Injector 8 (L8T)



2792100

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 340624008
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.5 Series, Sealed(BK)

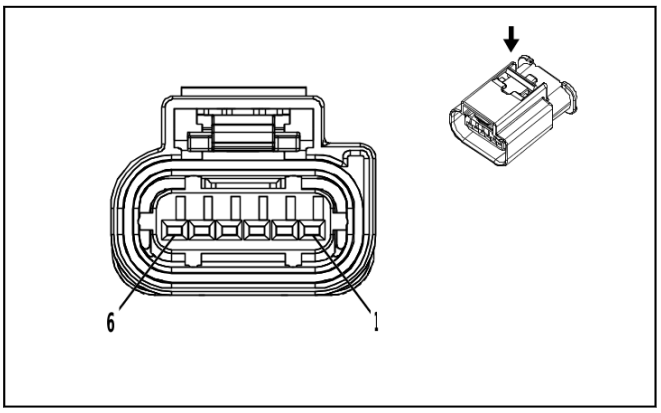
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

Q17H Fuel Injector 8 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) GY / WH	(1) 4908	(1) Direct Fuel Injector High Voltage Supply Cylinder 8	(1) I	(1) —
(2) 2	(2) 0.75	(2) GY	(2) 4808	(2) Direct Fuel Injector High Voltage Control Cylinder 8	(2) I	(2) —

Q38 Throttle Body



3747579

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 2272975-5
- Service Connector: 19352911
- Description: 6-Way F 1.2 MCON Series, Sealed(BK)

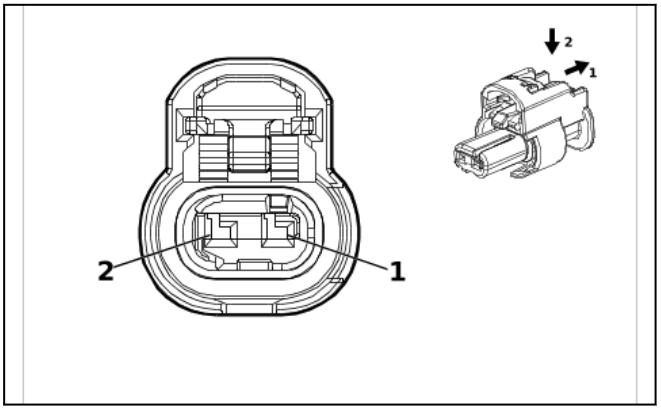
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) YE	(1) 581	(1) Throttle Actuator Open Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) BN / WH	(2) 582	(2) Throttle Actuator Close Control	(2) I	(2) —
(3) 3	(3) 0.5	(3) BU / WH	(3) 3630	(3) Throttle Position Sensor SENT 1 Signal	(3) I	(3) —
(4) 4	(4) 0.5	(4) BK / BN	(4) 2752	(4) Throttle Position Sensor Low Reference	(4) I	(4) —
(5) 5	(5) 0.5	(5) BN / RD	(5) 2701	(5) Throttle Position Sensor 5V Reference	(5) I	(5) —
6	—	—	—	Not Occupied	—	—

Q44 Engine Oil Pressure Control Solenoid Valve (L8T)



4036662

Connector Part Information
- Harness Type: Oil Pump Flow Control Solenoid Valve Wire
- OEM Connector: 1-2296704-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON-CB Series, Sealed(BK)

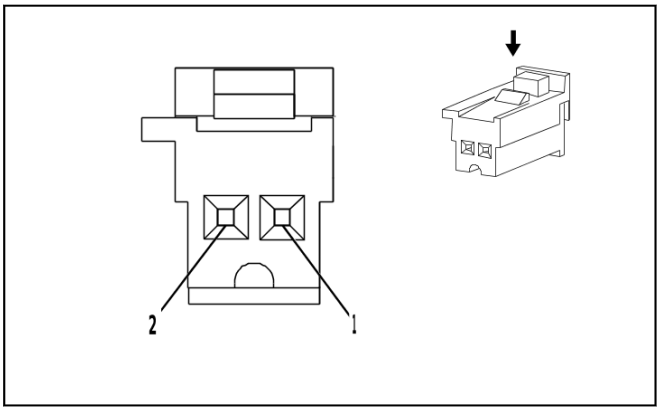
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q44 Engine Oil Pressure Control Solenoid Valve (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) VT / BU	(1) 5293	(1) Powertrain Main Relay Fused Supply Voltage 4	(1) I	(1) —
(2) 2	(2) 0.5	(2) BU	(2) 179	(2) Engine Oil Pump Control	(2) I	(2) —

Q77A Transmission Control Solenoid Valve 1 (MTH / N8X)



4051391

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 13956948
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 MTS Series(VT)

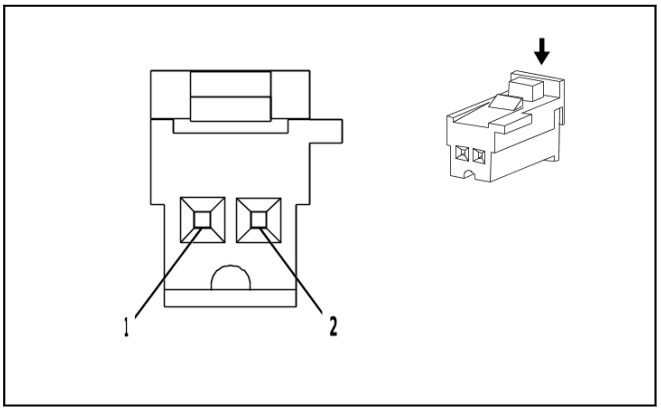
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77A Transmission Control Solenoid Valve 1 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BN	(1) 6400	(1) Clutch Solenoid Valve A Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY / BN	(2) 6388	(2) Transmission High Side Driver 2 Control	(2) I	(2) —

Q77B Transmission Control Solenoid Valve 2 (MTH / N8X)



4008644

Connector Part Information

- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 13941672
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 MTS Series(GY)

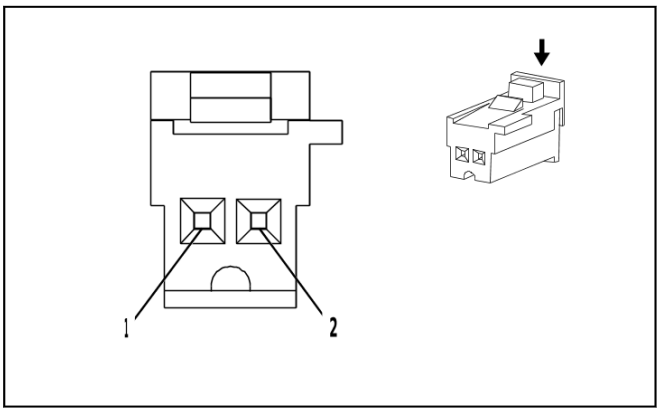
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77B Transmission Control Solenoid Valve 2 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU	(1) 6401	(1) Clutch Solenoid Valve B Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY / BN	(2) 6388	(2) Transmission High Side Driver 2 Control	(2) I	(2) —

Q77C Transmission Control Solenoid Valve 3 (MTH / N8X)



4008644

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 13941672
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 MTS Series(GY)

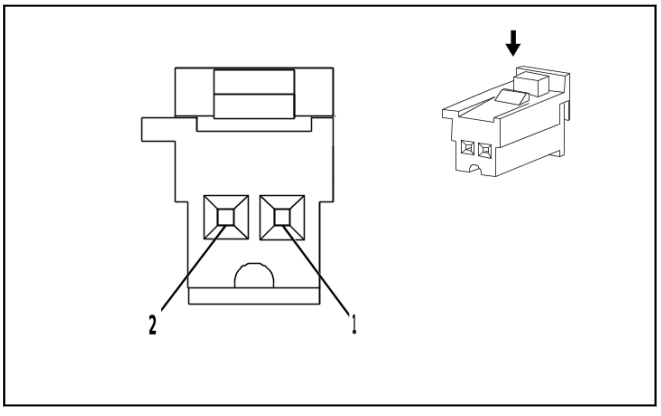
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77C Transmission Control Solenoid Valve 3 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY	(1) 6402	(1) Clutch Solenoid Valve C Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY / BN	(2) 6388	(2) Transmission High Side Driver 2 Control	(2) I	(2) —

Q77D Transmission Control Solenoid Valve 4 (MTH / N8X)



4051391

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 13956948
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 MTS Series(VT)

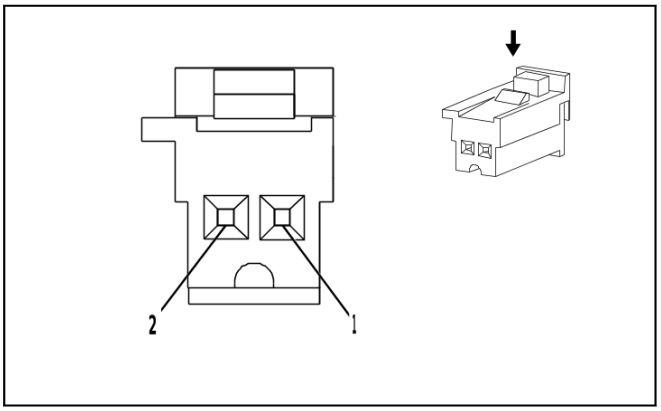
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77D Transmission Control Solenoid Valve 4 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH	(1) 4508	(1) Transmission Clutch G Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / GY	(2) 6387	(2) Transmission High Side Driver 1 Control	(2) I	(2) —

Q77E Transmission Control Solenoid Valve 5 (MTH / N8X)



4051391

Connector Part Information

- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 13956948
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 MTS Series(VT)

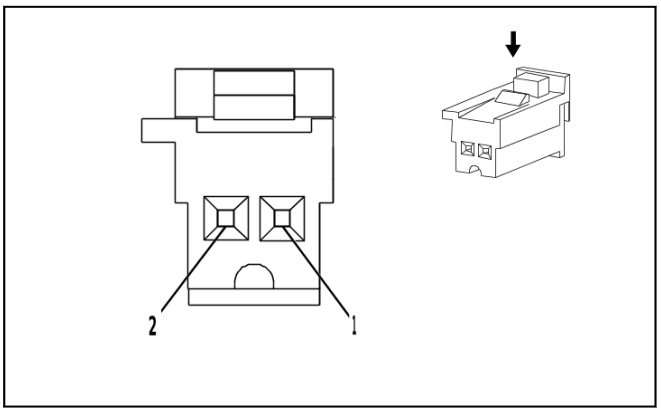
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77E Transmission Control Solenoid Valve 5 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) WH / BU	(1) 4507	(1) Transmission Clutch H Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / GY	(2) 6387	(2) Transmission High Side Driver 1 Control	(2) I	(2) —

Q77F Transmission Control Solenoid Valve 6 (MTH / N8X)



4051391

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 13956948
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 MTS Series(VT)

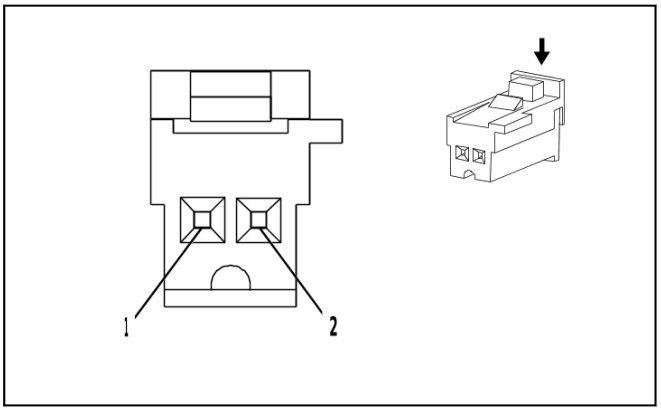
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77F Transmission Control Solenoid Valve 6 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / WH	(1) 1530	(1) Transmission Line Pressure Control Solenoid Valve Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY / BN	(2) 6388	(2) Transmission High Side Driver 2 Control	(2) I	(2) —

Q77G Transmission Control Solenoid Valve 7 (MTH / N8X)



4008644

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 13941672
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 0.64 MTS Series(GY)

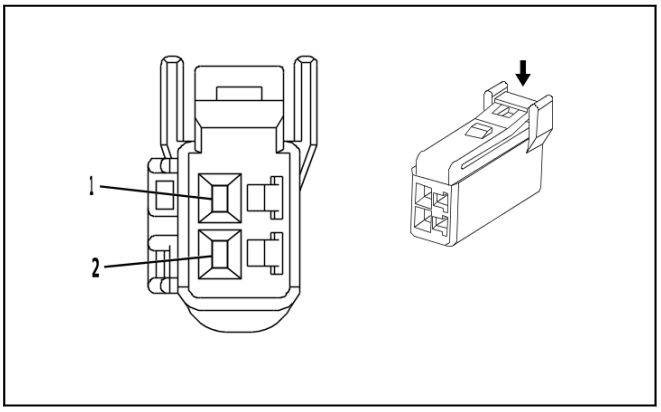
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

Q77G Transmission Control Solenoid Valve 7 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) VT / WH	(1) 422	(1) Torque Converter Clutch Solenoid Valve Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GY / BN	(2) 6388	(2) Transmission High Side Driver 2 Control	(2) I	(2) —

Q77H Transmission Control Solenoid Valve 8 (MTH / N8X)



4051682

Connector Part Information

- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 7287-0122
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 040 III Series(NA)

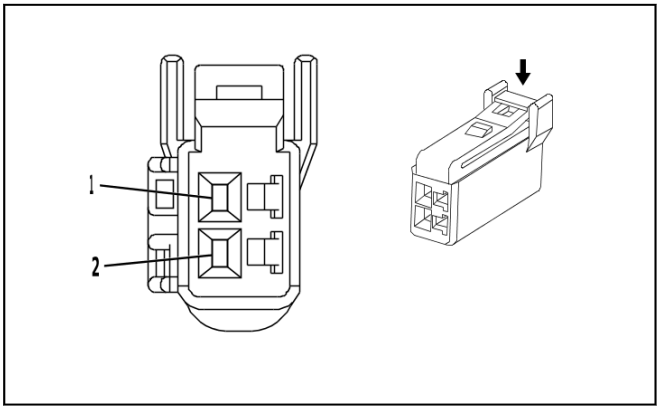
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q77H Transmission Control Solenoid Valve 8 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / GY	(1) 6387	(1) Transmission High Side Driver 1 Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / WH	(2) 6380	(2) Torque Converter Clutch Enable Solenoid Valve A Control	(2) I	(2) —

Q77J Transmission Control Solenoid Valve 9 (MTH / N8X)



4051682

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 7287-0122
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 040 III Series(NA)

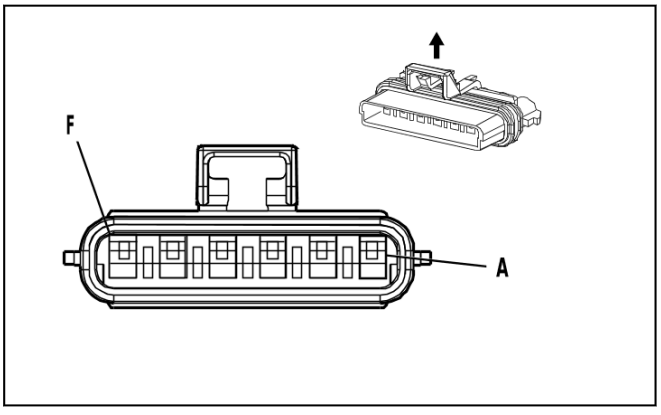
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q77J Transmission Control Solenoid Valve 9 (MTH / N8X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / BN	(1) 6388	(1) Transmission High Side Driver 2 Control	(1) I	(1) —
(2) 2	(2) 0.5	(2) YE / BN	(2) 6210	(2) Torque Converter Clutch Enable Solenoid Valve B Control	(2) I	(2) —

R3 Blower Motor Resistor



535914

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 12160746
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Flexlock Series, Sealed(L-GY)

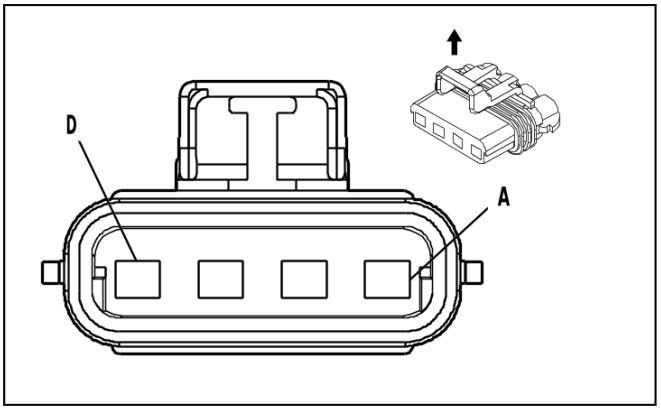
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

R3 Blower Motor Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD / PU	542	Battery Positive Voltage	I	—
B	1	WH / BK	52	Blower Motor High Speed Control	I	—
C	4	BK	1250	Ground	I	—
D	1	YE / BN	63	Blower Motor Medium 1 Control	I	—
E	1	YE	60	Blower Motor Low Speed Control	I	—
F	2	BU / YE	72	Blower Motor Medium 2 Control	I	—

R3B Blower Motor Resistor - Auxiliary (C36 / C69)



697053

Connector Part Information

- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12129566
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 280 Metri-Pack Series, Sealed(GY)

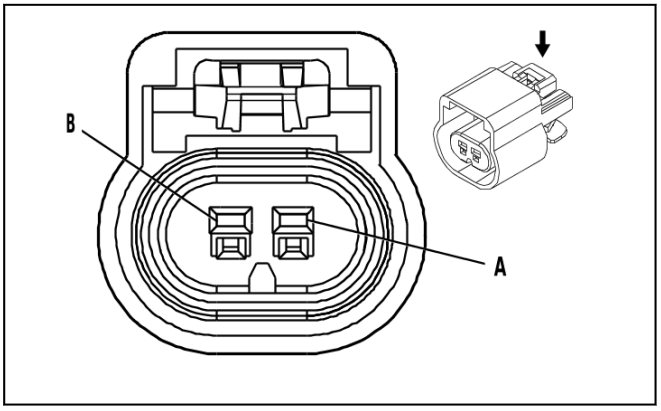
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

R3B Blower Motor Resistor - Auxiliary (C36 / C69)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B	—	—	—	Not Occupied	—	—
C	3	BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
D	3	YE	1172	Auxiliary Blower Motor Control	I	—

R6A Terminating Resistor - High Speed Bus



523630

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 13510085
- Service Connector: 87815146
- Description: 2-Way F 150 GT Series, Sealed(BK)

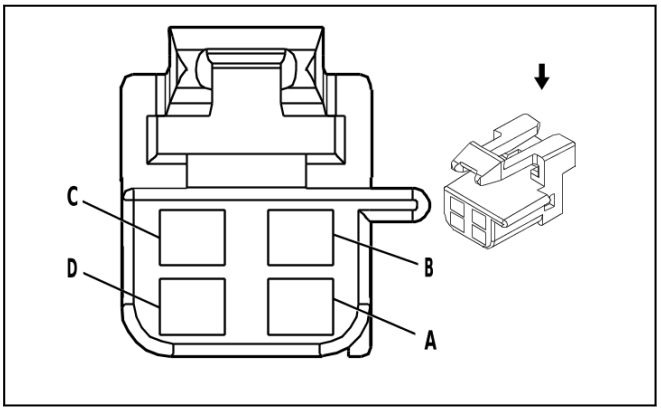
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

S2 Transmission Manual Shift Switch



130637

Connector Part Information
- Harness Type: Steering Column
- OEM Connector: 12064760
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 150 Metri-Pack Series(BK)

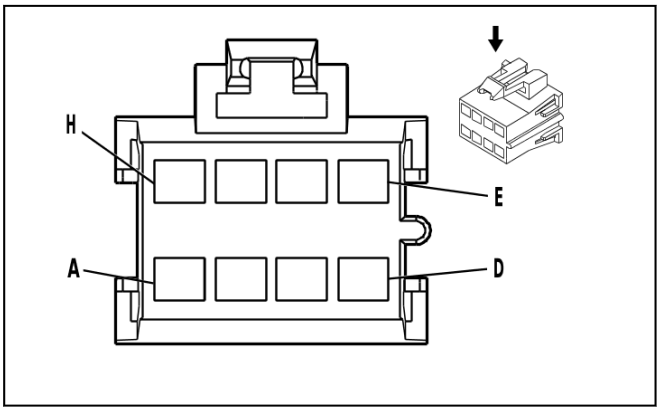
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S2 Transmission Manual Shift Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	PU	5526	Tap Up/Tap Down Switch Signal	I	—
D	—	PK	1444	12V Reference	I	—

S13A Door Lock Switch - Rear Cargo



62469

Connector Part Information

- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 12064998
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 280 Metri-Pack Series(BK)

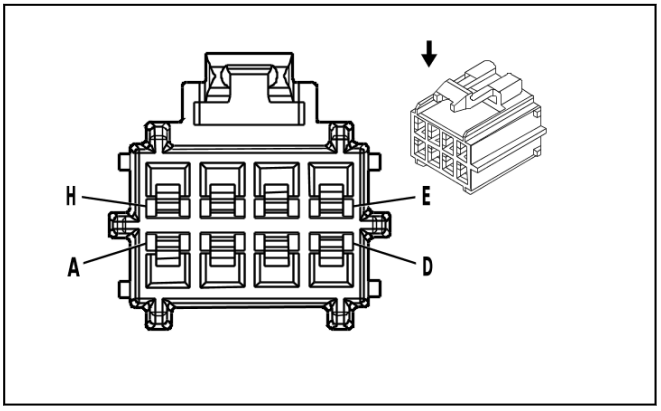
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S13A Door Lock Switch - Rear Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BU	244	Passenger Door Lock Switch Lock Control	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	BU	245	Passenger Door Lock Switch Unlock Control	I	—
E	0.35	BK / WH	1051	Signal Ground	I	—
F - H	—	—	—	Not Occupied	—	—

S13D Door Lock Switch - Driver (AU3)



851474

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 15418533
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 280 GT Series(L-GN)

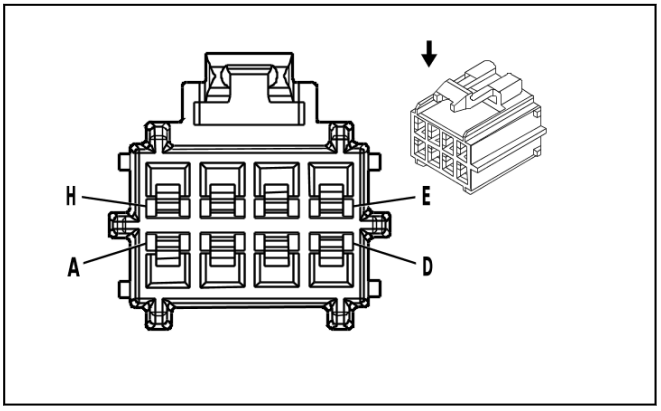
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S13D Door Lock Switch - Driver (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground	I	—
B	0.35	BK	450	Ground	I	—
C	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	OG / BK	781	Driver Door Lock Switch Unlock Signal	I	—
G	0.35	PK / BK	780	Driver Door Lock Switch Lock Signal	I	—
H	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger (AU3)



851474

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 15418533
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 280 GT Series(L-GN)

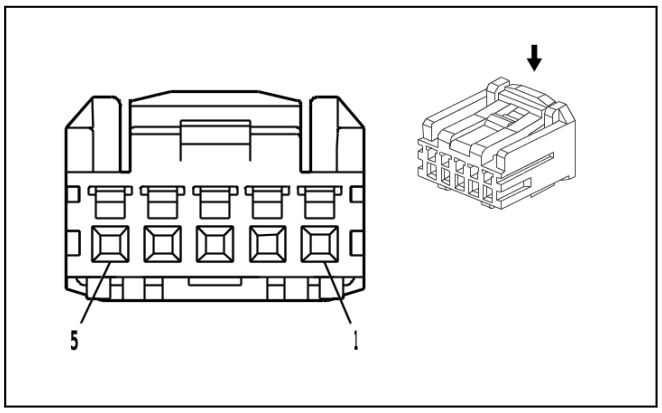
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S13P Door Lock Switch - Passenger (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	0.35	BK	1850	Ground	I	—
C	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	BU	245	Passenger Door Lock Switch Unlock Control	I	—
G	0.35	BU	244	Passenger Door Lock Switch Lock Control	I	—
H	—	—	—	Not Occupied	—	—

S16 Driver Information Center Switch



1673494

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: HCMPB-A05-K
- Service Connector: 88988747
- Description: 5-Way F HCM 5PA Series(BK)

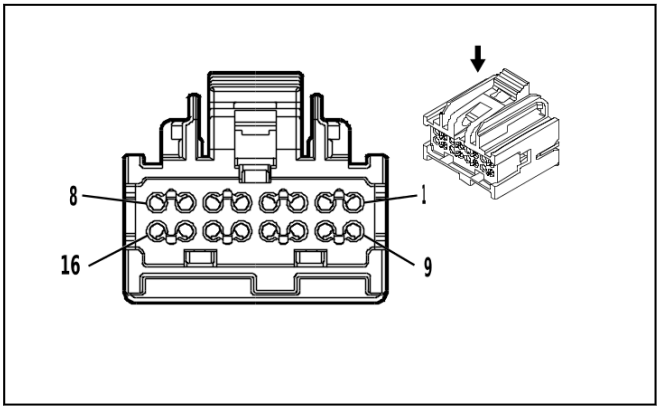
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S16 Driver Information Center Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) GN / WH	(1) 1358	(1) Driver Information Center Switch Signal	(1) I	(1) —
(2) 2	(2) 0.35	(2) BN	(2) 897	(2) Driver Information Center Switch Low Reference	(2) I	(2) —
(3) 3	(3) 0.35	(3) PK	(3) 893	(3) Driver Information Center Select Menu Switch Signal	(3) I	(3) —
(4) 4	(4) 0.5	(4) YE	(4) 6817	(4) LED Backlight Dimming Control 1	(4) I	(4) —
(5) 5	(5) 0.5	(5) BK / WH	(5) 351	(5) Signal Ground	(5) I	(5) —

S30 Headlamp Switch



2127936

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 13568238
- Service Connector: 13504130
- Description: 16-Way F 64 Micro-Series(BK)

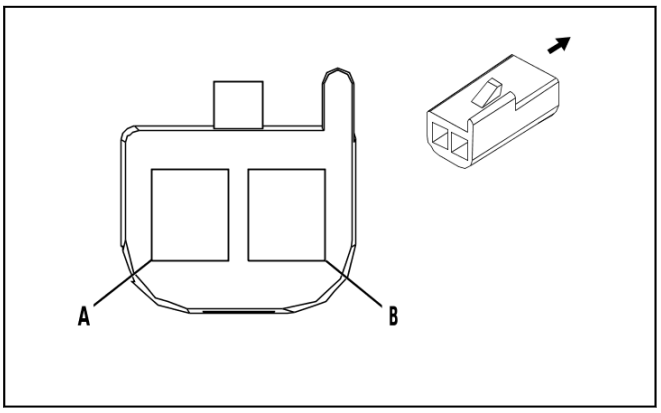
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575535	J-35616-64B (L-BU)	J-38125-21
II	13579976	J-35616-64B (L-BU)	J-38125-21

S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) WH	(1) 103	(1) Headlamp Switch On Signal	(1) I	(1) —
(2) 2	(2) 0.35	(2) BU	(2) 13	(2) Headlamp Switch Park Lamp Signal	(2) I	(2) —
(3) 3	(3) 0.35	(3) GN	(3) 306	(3) Headlamp Switch Off Signal	(3) I	(3) —
4 - 6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.35	(7) BN / WH	(7) 230	(7) Instrument Panel Lamp Dimming Control	(7) I	(7) —
(8) 8	(8) 0.5	(8) BK / WH	(8) 351	(8) Signal Ground	(8) II	(8) —
(9) 9	(9) 0.35	(9) PU	(9) 328	(9) Interior Lamp Defeat Switch Signal	(9) I	(9) —
10 - 11	—	—	—	Not Occupied	—	—
(12) 12	(12) 0.35	(12) BU / WH	(12) 149	(12) Courtesy Lamp Control	(12) I	(12) —
(13) 13	(13) 0.35	(13) GN	(13) 44	(13) Instrument Panel Lamp Dimmer Switch Signal	(13) I	(13) —
14	—	—	—	Not Occupied	—	—
(15) 15	(15) 0.35	(15) OG / WH	(15) 812	(15) 12V Reference	(15) I	(15) —
16	—	—	—	Not Occupied	—	—

S33 Horn Switch



82383

Connector Part Information
- Harness Type: Steering Wheel
- OEM Connector: 12047662
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 Metri-Pack Series(BK)

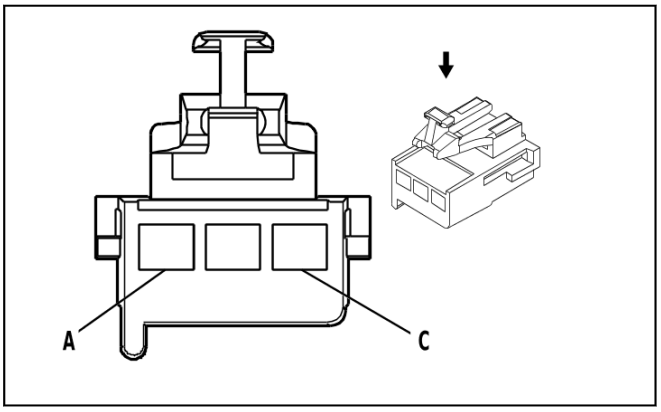
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S33 Horn Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	TN	28	Horn Relay Control	I	—
B	—	BK	350	Ground	I	—

S34 HVAC Controls Switch Assembly X1



68737

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12129489
- Service Connector: 19368864
- Description: 3-Way F 280 Metri-Pack Flexlock Series(BK)

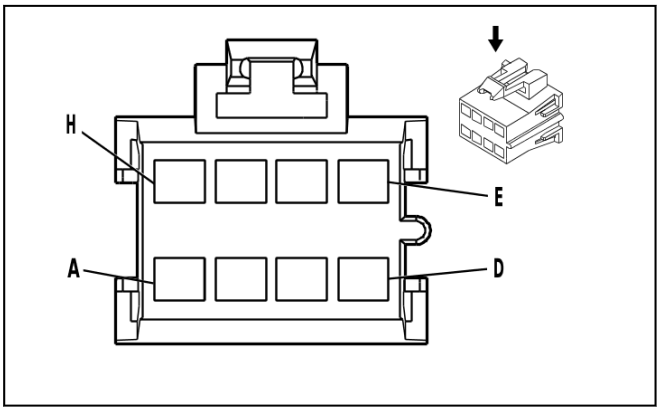
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	119	Mode Door Control	I	—
B	1	BK	550	Ground	I	—
C	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—

S34 HVAC Controls Switch Assembly X2



62469

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12064998
- Service Connector: 15306189
- Description: 8-Way F 280 Metri-Pack Series(BK)

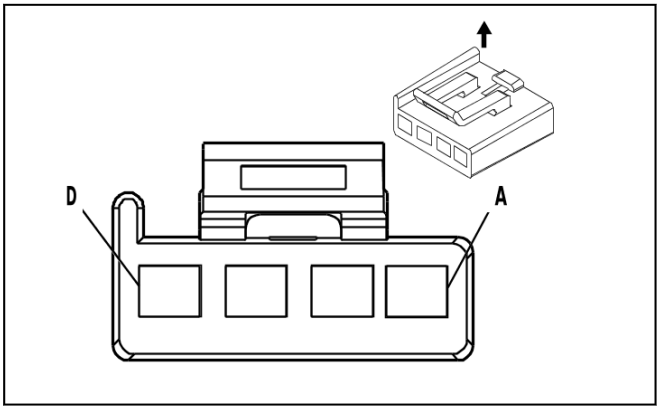
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	60	Blower Motor Low Speed Control	I	—
B	0.8	TN	63	Blower Motor Medium 1 Control	I	—
C	0.8	BU	72	Blower Motor Medium 2 Control	I	—
D	0.8	OG	52	Blower Motor High Speed Control	I	—
E	1	BN	141	Run Ignition 3 Voltage	I	—
F	0.8	BU	733	Air Temperature Door Position Signal	I	—
G	1	WH	119	Mode Door Control	I	—
H	0.5	GN / WH	762	Air Conditioning Request Signal 2	I	—

S34 HVAC Controls Switch Assembly X3



62450

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12052856
- Service Connector: 12125636
- Description: 4-Way F 280 Metri-Pack Series(BK)

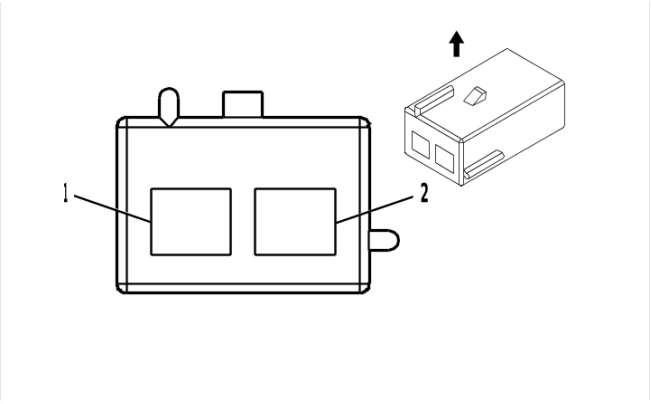
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	RD / WH	4440	Battery Positive Voltage	I	—
B	0.35	BN	341	Run Ignition 3 Voltage	I	—
C	1	BK	550	Ground	I	—
D	0.35	WH	193	Rear Defogger Relay Control	I	—

S34 HVAC Controls Switch Assembly X4



1283895

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15318080
- Service Connector: 21019410
- Description: 2-Way F 280 Metri-Pack Series(BK)

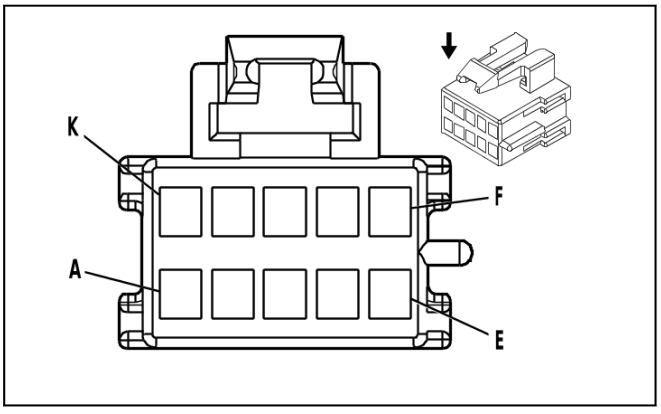
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S34 HVAC Controls Switch Assembly X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN	(1) 66	(1) Air Conditioning Request Signal	(1) I	(1) —
(2) 2	(2) 0.5	(2) GN / WH	(2) 762	(2) Air Conditioning Request Signal 2	(2) I	(2) —

S34F HVAC Controls Switch Assembly - Auxiliary Front (Without Rear HVAC Controls)



803688

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12064871
- Service Connector: 12101832
- Description: 10-Way F 150 Metri-Pack Series(BU)

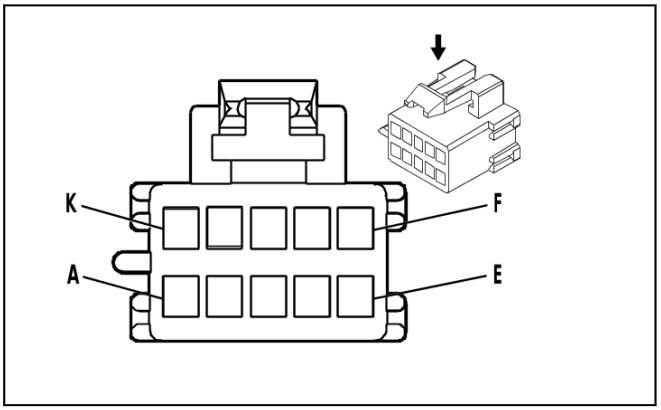
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front (Without Rear HVAC Controls)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground	I	—
C	0.5	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	BK	1850	Ground	I	—
G	0.35	BN	341	Run Ignition 3 Voltage	I	—
H	0.35	OG	2775	Rear Air Temperature Door Actuator Control	I	—
J	0.35	GY	2599	Rear Mode Door Actuator Signal	I	—
K	—	—	—	Not Occupied	—	—

S34F HVAC Controls Switch Assembly - Auxiliary Front (With Rear HVAC Controls)



62464

Connector Part Information

- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12064769
- Service Connector: 12101762
- Description: 10-Way F 150 Metri-Pack Series(NA)

Terminal Part Information

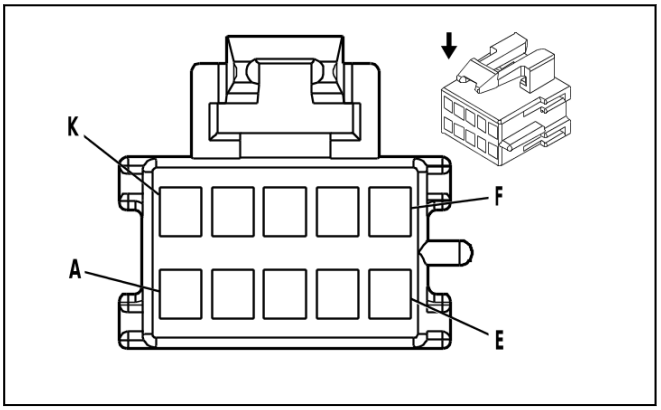
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34F HVAC Controls Switch Assembly - Auxiliary Front (With Rear HVAC Controls)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground	I	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C	0.5	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.35	YE	5262	Auxiliary HVAC Rear Controls Enable Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage	I	—
H	0.35	PU	5260	Auxiliary HVAC Front Temperature Signal	I	—
J	0.35	TN	5261	Auxiliary HVAC Front Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S34R HVAC Controls Switch Assembly - Auxiliary Rear (C36 / C69)



803688

Connector Part Information

- Harness Type: Roof Console Wiring Harness
- OEM Connector: 12064871
- Service Connector: 12101832
- Description: 10-Way F 150 Metri-Pack Series(BU)

Terminal Part Information

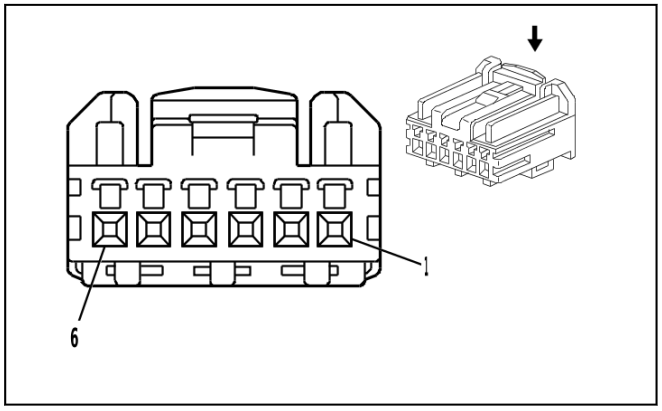
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575464	J-35616-14 (GN)	J-38125-12A

S34R HVAC Controls Switch Assembly - Auxiliary Rear (C36 / C69)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.5	BK	1050	Ground	I	—
C	0.5	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—
F	0.5	PK / BK	5265	Auxiliary HVAC Rear Control Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage	I	—
H	0.5	BN	5263	Auxiliary HVAC Rear Temperature Signal	I	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
J	0.5	PU / WH	5264	Auxiliary HVAC Rear Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S39 Ignition Switch



3681331

Connector Part Information
- Harness Type: Steering Column
- OEM Connector: HCMPB-C06-K
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 HCM Series(BK)

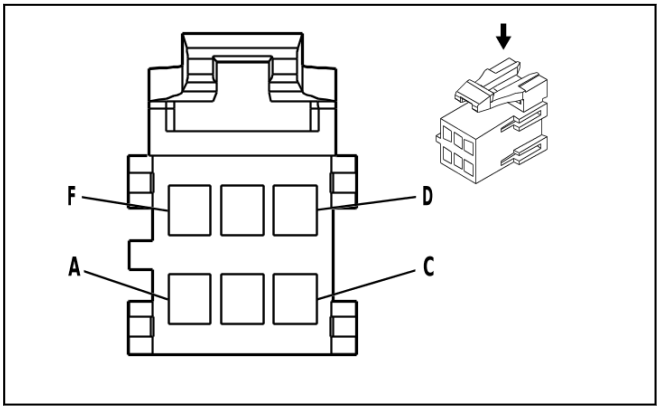
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S39 Ignition Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
(2) 2	(2) —	(2) PK	(2) 3	(2) Run/Crank Ignition 1 Voltage	(2) I	(2) —
(3) 3	(3) —	(3) BN	(3) 4	(3) Accessory Ignition Voltage	(3) I	(3) —
(4) 4	(4) —	(4) RD / WH	(4) 540	(4) Battery Positive Voltage	(4) I	(4) —
(5) 5	(5) —	(5) PK	(5) 1020	(5) Off/Run/Crank Ignition Voltage	(5) I	(5) —
(6) 6	(6) —	(6) WH	(6) 530	(6) Off/Run/Crank Ignition Voltage	(6) I	(6) —

S40 Passenger Air Bag Disable Switch



362753

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15305286
- Service Connector: 15306014
- Description: 6-Way F 150 Metri-Pack Series(YE)

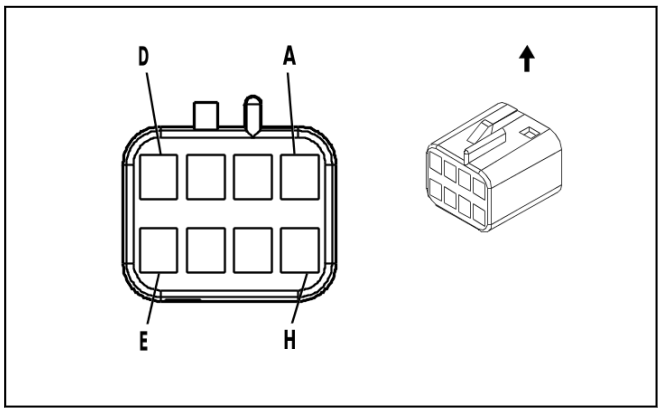
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S40 Passenger Air Bag Disable Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN / BK	371	Passenger Supplemental Inflatable Restraint Disable Switch Signal	I	—
B	0.35	PK	1139	Run/Crank Ignition 1 Voltage	I	—
C	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
D	0.5	PK	353	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	I	—
E	0.5	BK / WH	1751	Signal Ground	I	—
F	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—

S51 Telematics Button Assembly



62439

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12047886
- Service Connector: 13584485
- Description: 8-Way F 150 Metri-Pack Series(BK)

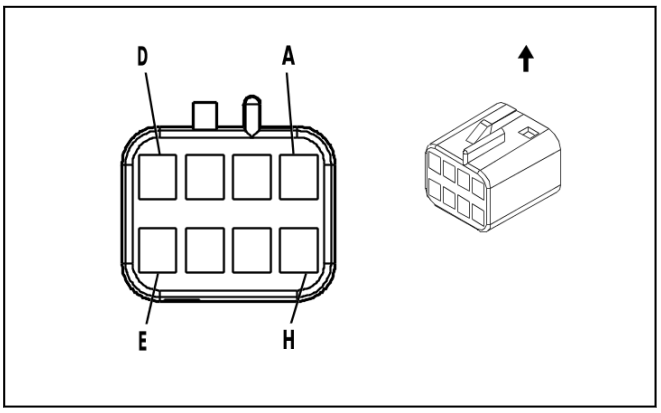
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S51 Telematics Button Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GN / BK	2515	Telematics Switch Supply Voltage	I	—
B	0.8	GN / WH	2514	Telematics Switch Signal	I	—
C - D	—	—	—	Not Occupied	—	—
E	1	BK / WH	351	Signal Ground	I	—
F	0.8	YE / BK	2516	Telematics Switch Green LED Indicator Control	I	—
G	0.8	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	—
H	—	—	—	Not Occupied	—	—

S52 Outside Rearview Mirror Switch (DE5)



62439

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 12047886
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 150 Metri-Pack Series(BK)

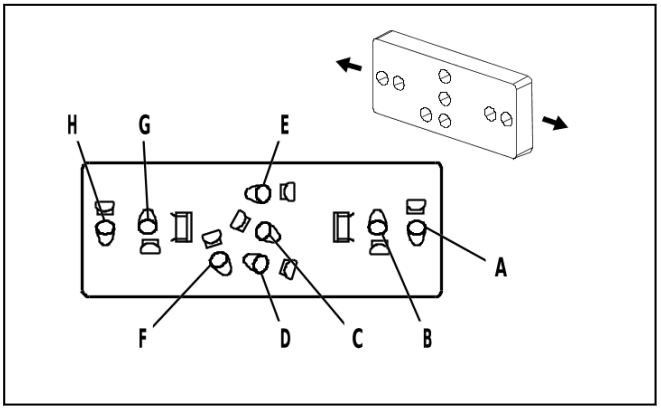
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S52 Outside Rearview Mirror Switch (DE5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	OG / WH	881	Right Outside Rearview Mirror Motor Right Control	I	—
B	0.35	PU / WH	889	Right Outside Rearview Mirror Motor Down Control	I	—
C	0.35	BN / WH	1498	Right Outside Rearview Mirror Motor Up Control	I	—
D	0.5	BK	450	Ground	I	—
E	0.5	RD / WH	4340	Battery Positive Voltage	I	—
F	0.35	GN	89	Left Outside Rearview Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Outside Rearview Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Outside Rearview Mirror Motor Up Control	I	—

S64D Seat Adjuster Switch - Driver (AG1)



387555

Connector Part Information

- Harness Type: Driver Seat
- OEM Connector: 12066386
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F Pin Grip Connector(GY)

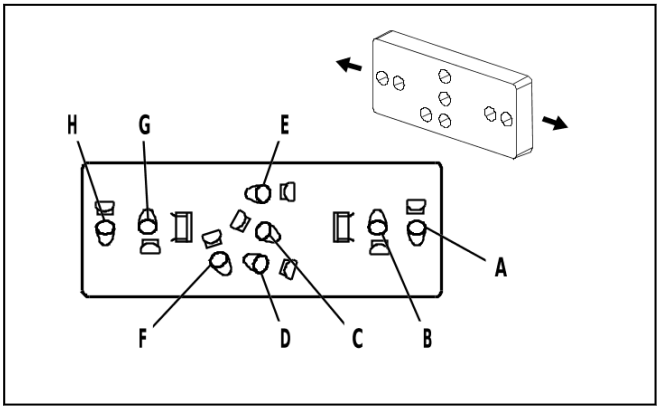
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S64D Seat Adjuster Switch - Driver (AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
B	—	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
C	—	BK	450	Ground	I	—
D	—	TN	285	Driver Seat Horizontal Motor Forward Control	I	—
E	—	GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
F	—	RD / WH	3540	Battery Positive Voltage	I	—
G	—	BU	287	Driver Seat Front Vertical Motor Down Control	I	—
H	—	GN	286	Driver Seat Front Vertical Motor Up Control	I	—

S64P Seat Adjuster Switch - Passenger (AG2)



387555

Connector Part Information

- Harness Type: Passenger Seat
- OEM Connector: 12066386
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F Pin Grip Connector(GY)

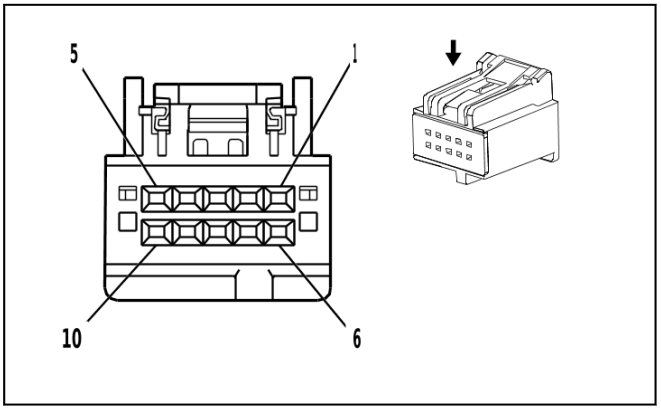
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S64P Seat Adjuster Switch - Passenger (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU	289	Passenger Seat Rear Vertical Motor Down Control	I	—
B	—	YE	288	Passenger Seat Rear Vertical Motor Up Control	I	—
C	—	BK	1850	Ground	I	—
D	—	TN	296	Passenger Seat Horizontal Motor Forward Control	I	—
E	—	GN	290	Passenger Seat Horizontal Motor Rearward Control	I	—
F	—	RD / WH	3540	Battery Positive Voltage	I	—
G	—	BU	298	Passenger Seat Front Vertical Motor Down Control	I	—
H	—	GN	297	Passenger Seat Front Vertical Motor Up Control	I	—

S70L Steering Wheel Controls Switch - Left (K34)



1399235

Connector Part Information

- Harness Type: Steering Wheel Pad Accessory Wiring Harness
- OEM Connector: 30700-1100
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 H-DAC Series(GY)

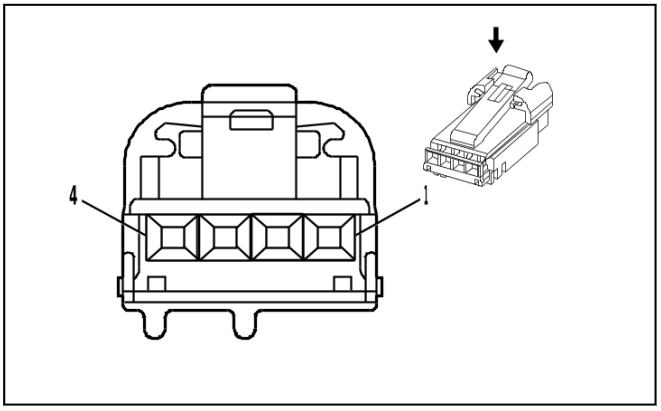
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70L Steering Wheel Controls Switch - Left (K34)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 22	(1) PK	(1) 1444	(1) 12V Reference	(1) I	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 22	(3) GY	(3) 1884	(3) Cruise Control Set/Coast/Resume/Accelerate Switch Signal	(3) I	(3) —
4 - 5	—	—	—	Not Occupied	—	—
(6) 6	(6) 22	(6) BN	(6) 6136	(6) Control	(6) I	(6) —
7	—	—	—	Not Occupied	—	—
(8) 8	(8) 22	(8) BK	(8) 350	(8) Ground	(8) I	(8) —
(9) 9	(9) 22	(9) GN / WH	(9) 7158	(9) Cruise Control Indicator Dimming Signal	(9) I	(9) —
10	—	—	—	Not Occupied	—	—

S70R Steering Wheel Controls Switch - Right (W1Y)



1709750

Connector Part Information

- Harness Type: Steering Wheel Pad Accessory Wiring Harness
- OEM Connector: 31068-1010
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 0.64 H-DAC Series(BK)

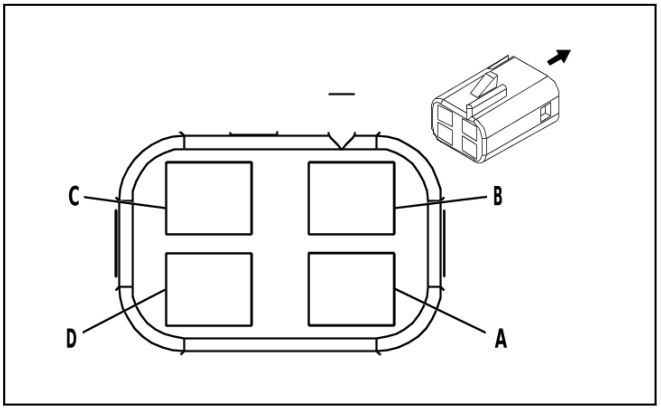
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S70R Steering Wheel Controls Switch - Right (W1Y)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 22	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 22	(2) BN	(2) 6136	(2) Control	(2) I	(2) —
(3) 3	(3) 22	(3) PK	(3) 1444	(3) 12V Reference	(3) I	(3) —
(4) 4	(4) 22	(4) GN	(4) 6818	(4) Steering Wheel Controls Signal 1	(4) I	(4) —

S74 Tow/Haul Mode Switch



39660

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12047785
- Service Connector: 12102900
- Description: 4-Way F 150 Metri-Pack Series(BK)

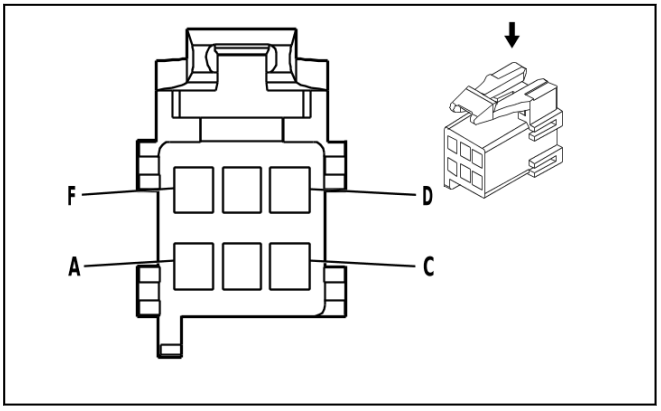
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S74 Tow/Haul Mode Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK / WH	351	Signal Ground	I	—
B	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	BU	1788	Traction Control Switch Signal 1	I	—

S75 Traction Control Switch



304345

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12177195
- Service Connector: 15305931
- Description: 6-Way F 150 Metri-Pack Series(BK)

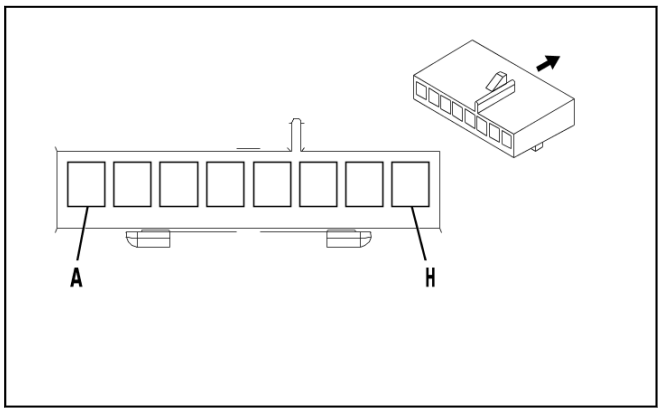
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

S75 Traction Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	0.35	BK / WH	351	Signal Ground	I	—
D	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	BU	6727	Vehicle Stability Control Switch Signal	I	—

S78 Turn Signal/Multifunction Switch X1



39746

Connector Part Information
- Harness Type: Steering Column
- OEM Connector: 12064862
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 150 Metri-Pack Series(BK)

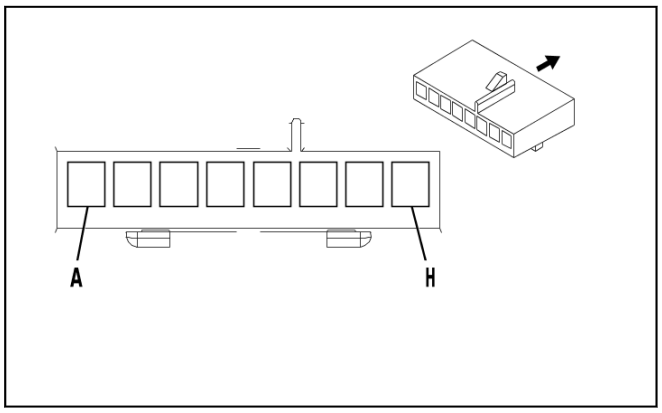
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S78 Turn Signal/Multifunction Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	BK / WH	351	Signal Ground	I	—
D	—	TN	664	Hazard Switch Right Turn Signal	I	—
E	—	GN	663	Hazard Switch Left Turn Signal	I	—
F	—	BK / WH	351	Signal Ground	I	—
G	—	WH	111	Hazard Warning Switch Signal	I	—
H	—	—	—	Not Occupied	—	—

S78 Turn Signal/Multifunction Switch X2



39746

Connector Part Information

- Harness Type: Steering Column
- OEM Connector: 12064862
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 150 Metri-Pack Series(BK)

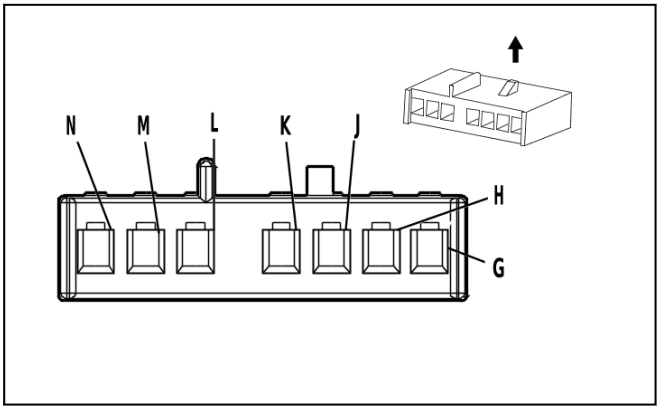
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S78 Turn Signal/Multifunction Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	YE	525	High Beam Select Switch Low Beam Signal	I	—
D	—	BK / WH	351	Signal Ground	I	—
E	—	YE	307	Headlamp Switch Flash Signal	I	—
F - H	—	—	—	Not Occupied	—	—

S78 Turn Signal/Multifunction Switch X3



811190

Connector Part Information

- Harness Type: Steering Column
- OEM Connector: 15339058
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 150 Metri-Pack Series(GY)

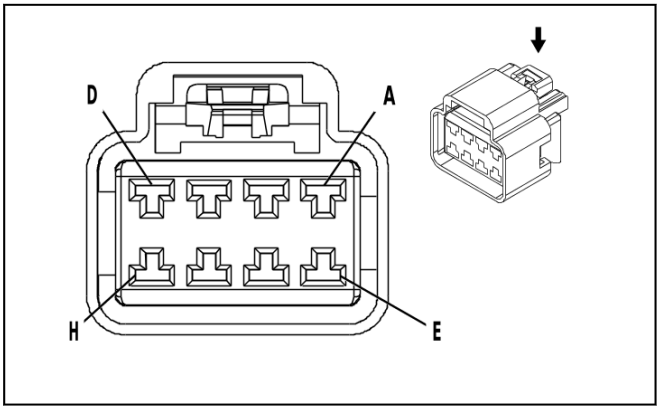
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

S78 Turn Signal/Multifunction Switch X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
G - J	—	—	—	Not Occupied	—	—
K	—	GN	1715	Windshield Wiper Switch High Signal	I	—
L	—	PK	94	Windshield Washer Switch Signal	I	—
M	—	TN / BK	6009	Windshield Wiper Switch Low Reference	I	—
N	—	BU	1714	Windshield Wiper Switch Low Signal	I	—

S79D Window Switch - Driver (A31)



556473

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 15459914
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 280 GT Series, Sealed(BK)

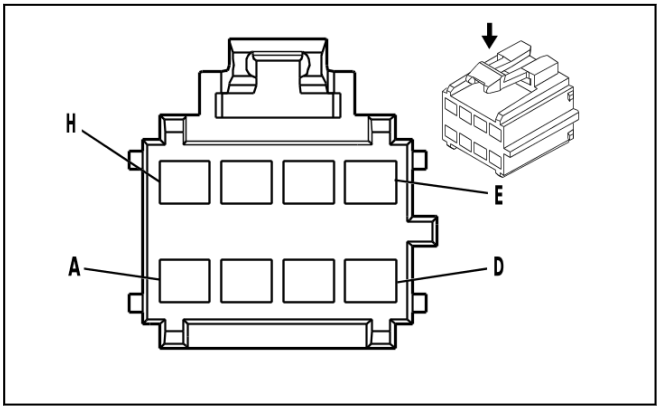
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S79D Window Switch - Driver (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	BU	166	Right Front Window Up Switch Main Control Signal	I	—
B	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
C	3	GN	1001	Retained Accessory Power Ignition Voltage	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BK	450	Ground	I	—
G	3	BU	164	Left Front Window Motor Up Control	I	—
H	3	BN	165	Left Front Window Motor Down Control	I	—

S79P Window Switch - Passenger (A31)



333036

Connector Part Information

- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 12191825
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 280 Metri-Pack Series(BN)

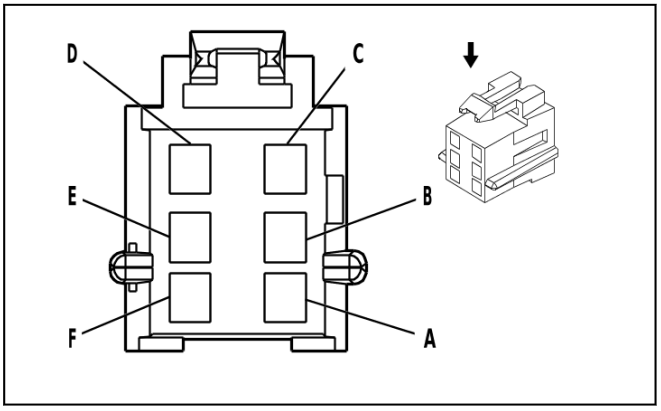
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S79P Window Switch - Passenger (A31)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	GN	1001	Retained Accessory Power Ignition Voltage	I	—
B	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
C	0.35	BK	1850	Ground	I	—
D	3	TN	167	Right Front Window Down Switch Main Control Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BN	667	Right Front Window Motor Down Control	I	—
G	3	BU	666	Right Front Window Motor Up Control	I	—
H	3	BU	166	Right Front Window Up Switch Main Control Signal	I	—

S85 Auxiliary Blower Motor Switch (C36)



62456

Connector Part Information

- Harness Type: Auxiliary Heater Front Wiring Harness
- OEM Connector: 12064752
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Series(BK)

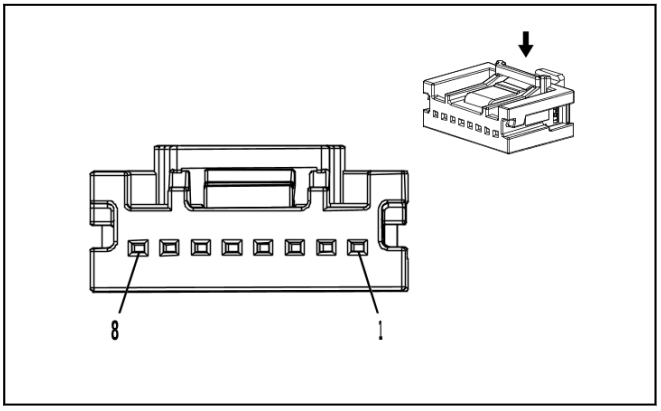
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S85 Auxiliary Blower Motor Switch (C36)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN / WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	450	Ground	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.35	BU	1926	Auxiliary Blower Motor Low Speed Control 2	I	—
F	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control 2	I	—

S155 Lane Departure Warning Switch



4017639

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 34791-5180
- Service Connector: 19354223
- Description: 8-Way F Mini 50 Series(BK)

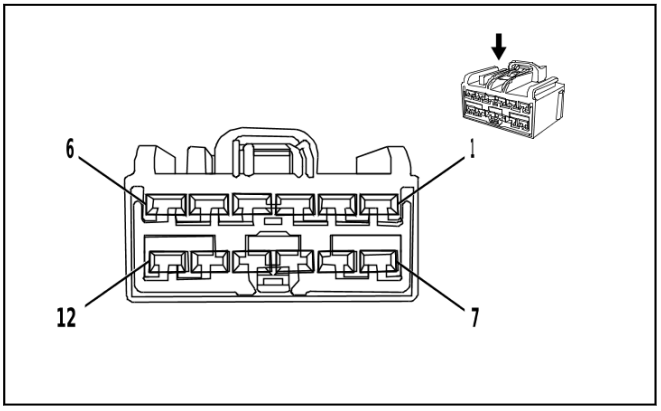
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	EL-35616-58 (BK)	No Tool Required

S155 Lane Departure Warning Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) YE / GY	(1) 1382	(1) LED Dimming Signal	(1) I	(1) —
2 - 3	—	—	—	Not Occupied	—	—
(4) 4	(4) 0.35	(4) GY / WH	(4) 3153	(4) Lane Departure Warning Disable Switch Signal	(4) I	(4) —
(5) 5	(5) 0.35	(5) WH	(5) 6816	(5) Indicator Dimming Control	(5) I	(5) —
6	—	—	—	Not Occupied	—	—
(7) 7	(7) 0.35	(7) WH	(7) 3152	(7) Lane Departure Warning Indicator Control	(7) I	(7) —
(8) 8	(8) 0.35	(8) BK / WH	(8) 2151	(8) Signal Ground	(8) I	(8) —

T1 Accessory DC/AC Power Inverter Module



2231648

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 7283-6467-40
- Service Connector: 13518424
- Description: 12-Way F 2.8 Kaizen Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368264	J-35616-4A (PU)	J-38125-11A

T1 Accessory DC/AC Power Inverter Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
(2) 2	(2) 1	(2) BK	(2) 5683	(2) 120V AC Phase A	(2) I	(2) —
3 - 5	—	—	—	Not Occupied	—	—
(6) 6	(6) 3	(6) RD / WH	(6) 4140	(6) Battery Positive Voltage	(6) I	(6) —
(7) 7	(7) 1	(7) WH	(7) 5685	(7) 120V AC Neutral	(7) I	(7) —
8 - 9	—	—	—	Not Occupied	—	—
(10) 10	(10) 0.5	(10) BARE	(10) 514	(10) Low Reference	(10) I	(10) —
(11) 11	(11) 3	(11) BK	(11) 550	(11) Ground	(11) I	(11) —
(12) 12	(12) 0.35	(12) GN	(12) 2266	(12) DC/AC Inverter Control 2	(12) I	(12) —

T4M Radio Antenna

—

Connector Part Information
- Harness Type: Antenna
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way

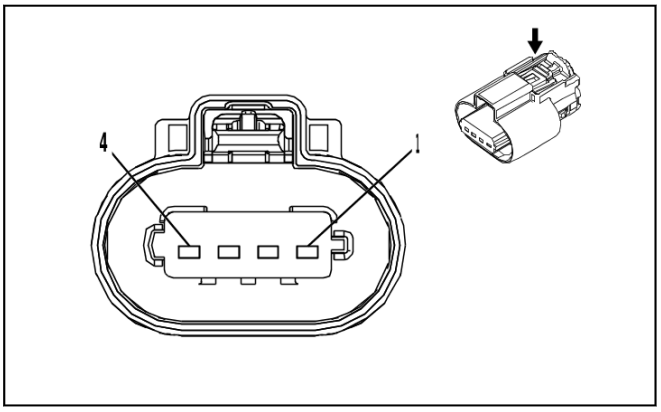
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4M Radio Antenna

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
BK	—	—	Coax Cable	Coax Cable	I	—

T8A Ignition Coil 1



3240115

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

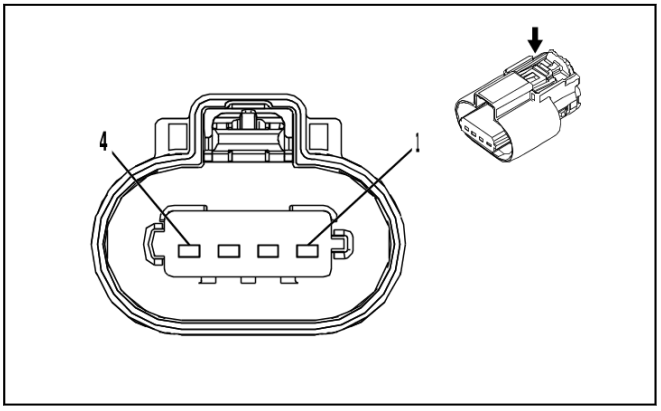
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8A Ignition Coil 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / BU	(2) 2129	(2) Ignition Control Low Reference Bank 1	(2) I	(2) —
(3) 3	(3) 0.5	(3) BU / VT	(3) 2121	(3) Ignition Control 1	(3) I	(3) —
(4) 4	(4) 0.75	(4) VT / BU	(4) 5291	(4) Powertrain Main Relay Fused Supply Voltage 2	(4) I	(4) —

T8B Ignition Coil 2



3240115

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

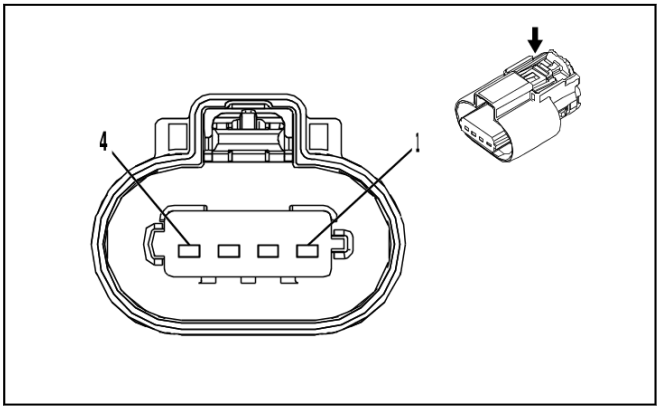
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8B Ignition Coil 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / GY	(2) 2130	(2) Ignition Control Low Reference Bank 2	(2) I	(2) —
(3) 3	(3) 0.5	(3) BU / WH	(3) 2122	(3) Ignition Control 2	(3) I	(3) —
(4) 4	(4) 0.75 (4) 0.75	(4) VT / BU (4) VT / BK	(4) 5292 (4) 1239	(4) Powertrain Main Relay Fused Supply Voltage 3 (4) Run/Crank Ignition 1 Voltage	(4) I (4) I	(4) L8T (4) LV1

T8C Ignition Coil 3



3240115

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

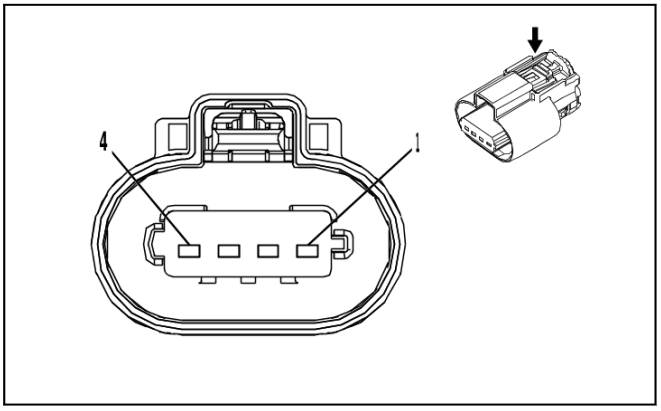
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8C Ignition Coil 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / BU	(2) 2129	(2) Ignition Control Low Reference Bank 1	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN / BU	(3) 2123	(3) Ignition Control 3	(3) I	(3) —
(4) 4	(4) 0.75	(4) VT / BU	(4) 5291	(4) Powertrain Main Relay Fused Supply Voltage 2	(4) I	(4) —

T8D Ignition Coil 4



3240115

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

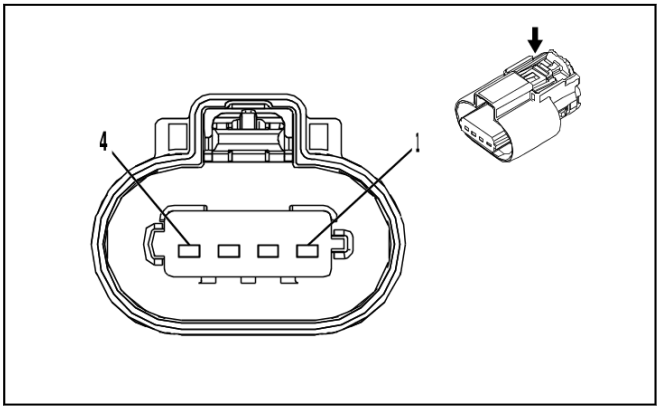
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8D Ignition Coil 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / GY	(2) 2130	(2) Ignition Control Low Reference Bank 2	(2) I	(2) —
(3) 3	(3) 0.5	(3) YE / BU	(3) 2124	(3) Ignition Control 4	(3) I	(3) —
(4) 4	(4) 0.75 (4) 0.75	(4) VT / BU (4) VT / BK	(4) 5292 (4) 1239	(4) Powertrain Main Relay Fused Supply Voltage 3 (4) Run/Crank Ignition 1 Voltage	(4) I (4) I	(4) L8T (4) LV1

T8E Ignition Coil 5



3240115

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

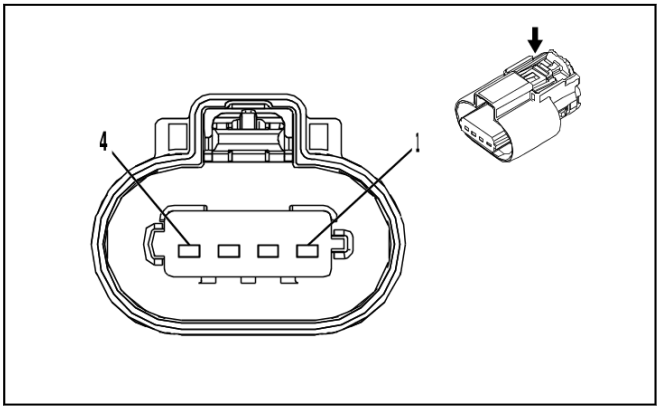
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8E Ignition Coil 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / BU	(2) 2129	(2) Ignition Control Low Reference Bank 1	(2) I	(2) —
(3) 3	(3) 0.5	(3) BU / GY	(3) 2125	(3) Ignition Control 5	(3) I	(3) —
(4) 4	(4) 0.75	(4) VT / BU	(4) 5291	(4) Powertrain Main Relay Fused Supply Voltage 2	(4) I	(4) —

T8F Ignition Coil 6



3240115

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

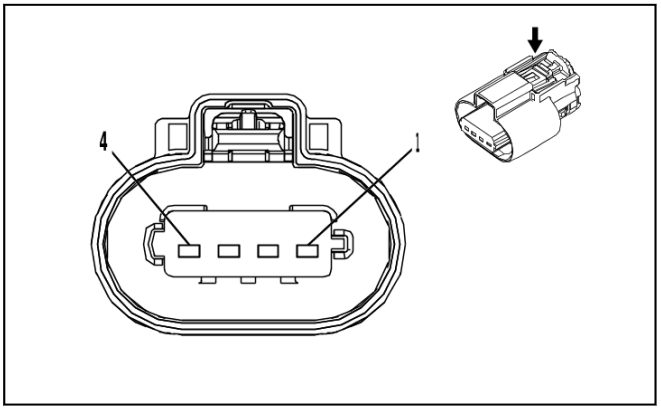
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8F Ignition Coil 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / GY	(2) 2130	(2) Ignition Control Low Reference Bank 2	(2) I	(2) —
(3) 3	(3) 0.5	(3) BN / BU	(3) 2126	(3) Ignition Control 6	(3) I	(3) —
(4) 4	(4) 0.75 (4) 0.75	(4) VT / BU (4) VT / BK	(4) 5292 (4) 1239	(4) Powertrain Main Relay Fused Supply Voltage 3 (4) Run/Crank Ignition 1 Voltage	(4) I (4) I	(4) L8T (4) LV1

T8G Ignition Coil 7 (L8T)



3240115

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

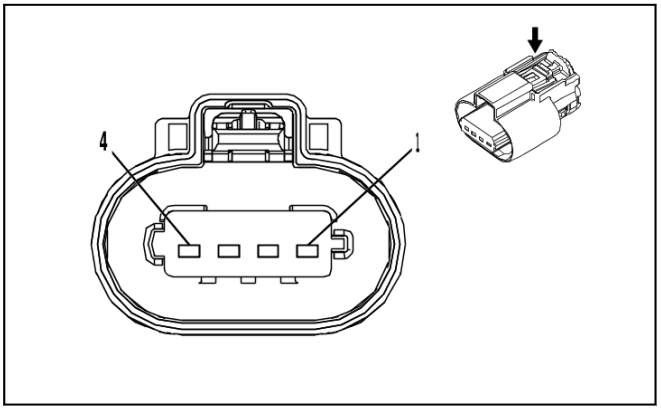
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8G Ignition Coil 7 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / BU	(2) 2129	(2) Ignition Control Low Reference Bank 1	(2) I	(2) —
(3) 3	(3) 0.5	(3) GN / GY	(3) 2127	(3) Ignition Control 7	(3) I	(3) —
(4) 4	(4) 0.75	(4) VT / BU	(4) 5291	(4) Powertrain Main Relay Fused Supply Voltage 2	(4) I	(4) —

T8H Ignition Coil 8 (L8T)



3240115

Connector Part Information

- Harness Type: Engine Wiring Harness
- OEM Connector: 34770-0402
- Service Connector: 19367596
- Description: 4-Way F 1.5 MX Series, Sealed(BK)

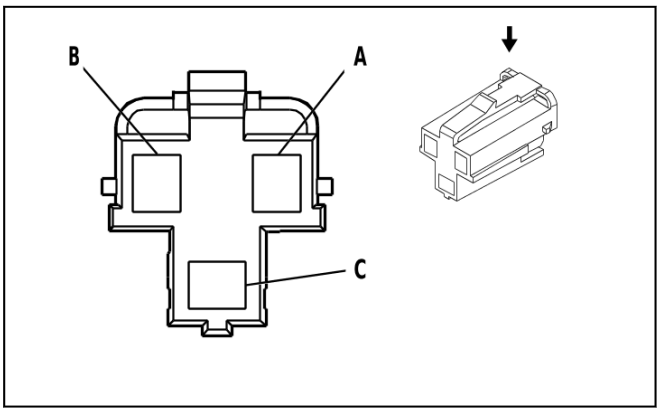
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

T8H Ignition Coil 8 (L8T)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BK	(1) 350	(1) Ground	(1) I	(1) —
(2) 2	(2) 0.5	(2) BK / GY	(2) 2130	(2) Ignition Control Low Reference Bank 2	(2) I	(2) —
(3) 3	(3) 0.5	(3) VT / WH	(3) 2128	(3) Ignition Control 8	(3) I	(3) —
(4) 4	(4) 0.75	(4) VT / BU	(4) 5292	(4) Powertrain Main Relay Fused Supply Voltage 3	(4) I	(4) —

X80A Accessory Power Receptacle - Center Console 1



362748

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12176836
- Service Connector: 19369281
- Description: 3-Way F 280 Metri-Pack Series(GY)

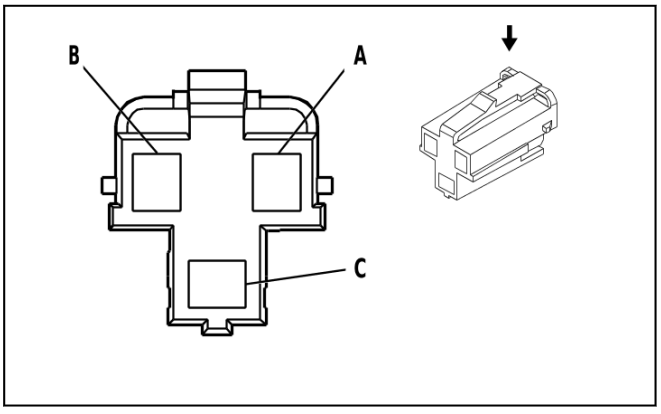
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80A Accessory Power Receptacle - Center Console 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD / WH	640	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground	I	—

X80B Accessory Power Receptacle - Center Console 2



362748

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12176836
- Service Connector: 19369281
- Description: 3-Way F 280 Metri-Pack Series(GY)

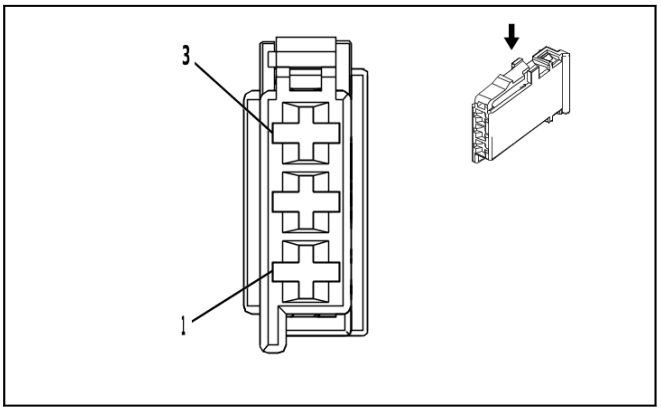
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X80B Accessory Power Receptacle - Center Console 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD / WH	1040	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground	I	—

X81 Accessory Power Receptacle - 110V AC X1 (KI4)



2039656

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 1452142-1
- Service Connector: 86790560
- Description: 3-Way F 1.6 Micro-Timer Series(BK)

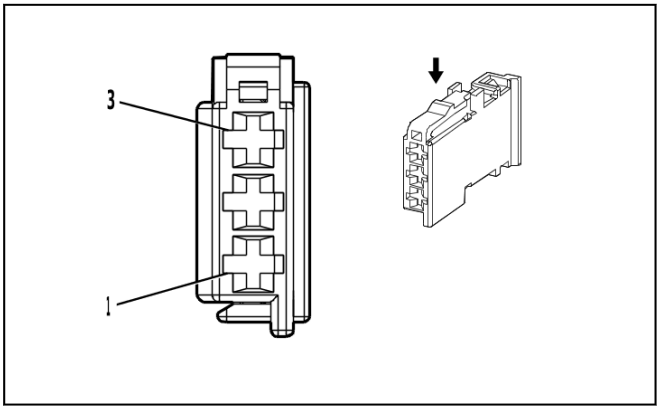
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X1 (KI4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU	(1) 6807	(1) DC/AC Inverter Control	(1) I	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 1	(3) BK	(3) 5683	(3) 120V AC Phase A	(3) I	(3) —

X81 Accessory Power Receptacle - 110V AC X2 (KI4)



2236412

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 0-1452142-2
- Service Connector: 19367740
- Description: 3-Way F 1.6 Timer Series(GY)

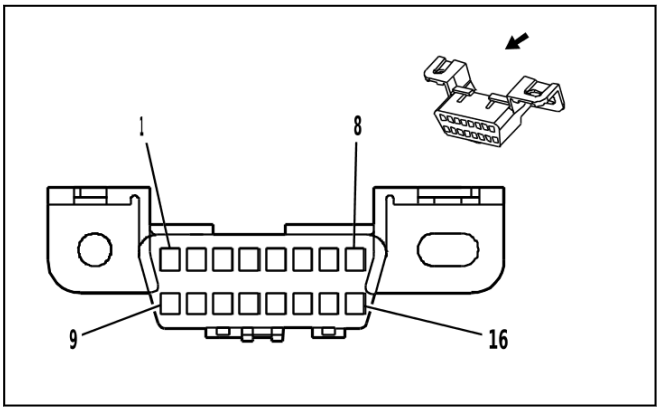
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

X81 Accessory Power Receptacle - 110V AC X2 (KI4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) GN	(1) 2266	(1) DC/AC Inverter Control 2	(1) I	(1) —
2	—	—	—	Not Occupied	—	—
(3) 3	(3) 1	(3) WH	(3) 5685	(3) 120V AC Neutral	(3) I	(3) —

X84 Data Link Connector



68793

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12110250
- Service Connector: 12110250
- Description: 16-Way F 150 Metri-Pack Series(BK)

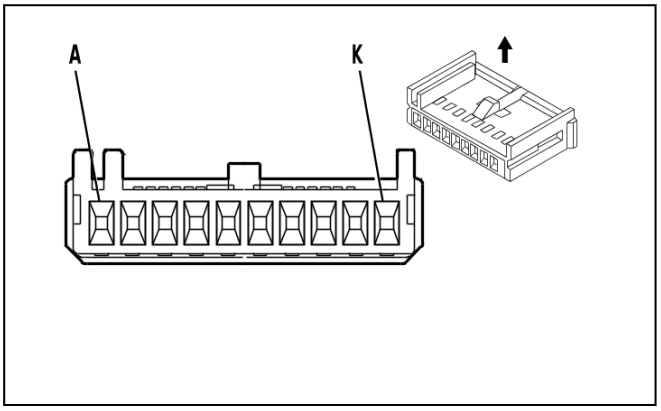
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580059	J-35616-14 (GN)	J-38125-12A

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) GN	(1) 5060	(1) Low Speed GMLAN Serial Data	(1) I	(1) —
2 - 3	—	—	—	Not Occupied	—	—
(4) 4	(4) 0.5	(4) BK / WH	(4) 351	(4) Signal Ground	(4) I	(4) —
(5) 5	(5) 0.5	(5) BK / WH	(5) 351	(5) Signal Ground	(5) I	(5) —
(6) 6	(6) 0.5	(6) BU	(6) 2500	(6) High Speed GMLAN Serial Data [+] 1	(6) I	(6) —
7 - 13	—	—	—	Not Occupied	—	—
(14) 14	(14) 0.5	(14) WH	(14) 2501	(14) High Speed GMLAN Serial Data [-] 1	(14) I	(14) —
15	—	—	—	Not Occupied	—	—
(16) 16	(16) 0.8	(16) RD / WH	(16) 640	(16) Battery Positive Voltage	(16) I	(16) —

X85 Steering Wheel Air Bag Coil X1



1593397

Connector Part Information

- Harness Type: Steering Column
- OEM Connector: 15393433
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 Micro-Pack Series(BK)

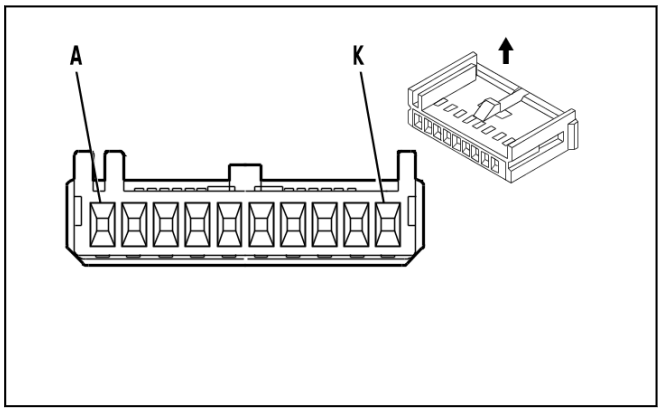
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X85 Steering Wheel Air Bag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	350	Ground	I	—
B	—	TN	28	Horn Relay Control	I	—
C	—	GN / WH	7158	Cruise Control Indicator Dimming Signal	I	—
D - E	—	—	—	Not Occupied	—	—
F	—	PK	1444	12V Reference	I	—
G	—	BN	6136	Control	I	—
H	—	GN	6818	Steering Wheel Controls Signal 1	I	—
J	—	—	—	Not Occupied	—	—
K	—	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—

X85 Steering Wheel Air Bag Coil X2



1593397

Connector Part Information

- Harness Type: Steering Wheel Pad Accessory Wiring Harness
- OEM Connector: 15393433
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 0.64 Micro-Pack Series(BK)

Terminal Part Information

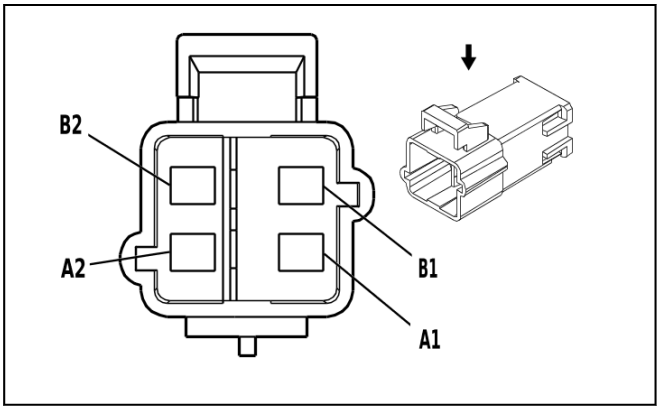
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X85 Steering Wheel Air Bag Coil X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	22	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
B	—	—	—	Not Occupied	—	—
C	22	GN	6818	Steering Wheel Controls Signal 1	I	—
D	22	BN	6136	Control	I	—
E	22	PK	1444	12V Reference	I	—

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F - G	—	—	—	Not Occupied	—	—
H	22	GN / WH	7158	Cruise Control Indicator Dimming Signal	I	—
J	22	TN	28	Horn Relay Control	I	—
K	22	BK	350	Ground	I	—

X85 Steering Wheel Air Bag Coil X3



684931

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15336476
- Service Connector: 88987998
- Description: 4-Way M 280 Metri-Pack Series(YE)

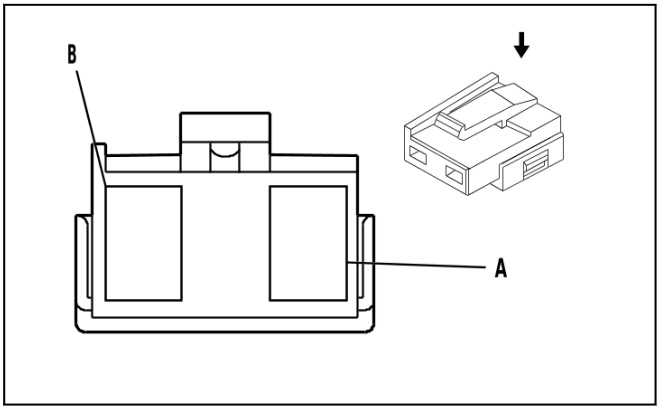
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-5 (PU)	No Tool Required

X85 Steering Wheel Air Bag Coil X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	TN	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
A2	0.5	BN	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—

X87RB Sliding Door Jamb Contact Plate - Right Body (Body)



38274

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12034343
- Service Connector: 12101821
- Description: 2-Way F 280 Metri-Pack Series(BK)

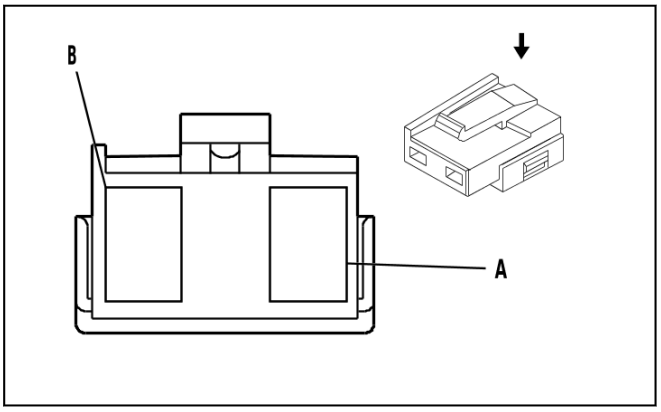
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body (Body)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (Door)



38274

Connector Part Information
- Harness Type: Rear Side Door Wiring Harness
- OEM Connector: 33148350
- Service Connector: Service by Harness - See Part Catalog
- Description: Striker Plate

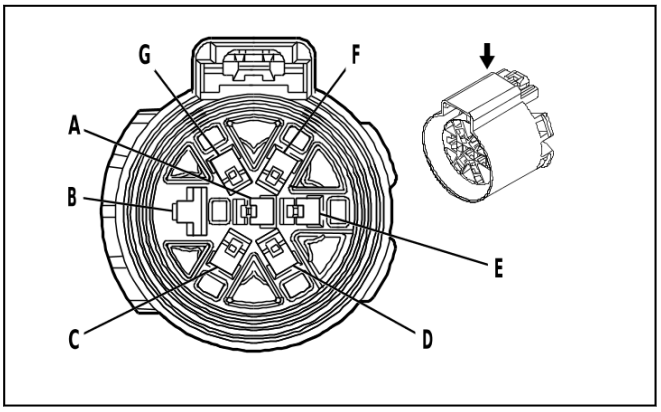
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-43 (RD)	No Tool Required

X87RB Sliding Door Jamb Contact Plate - Right Body (Door)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

X88 Trailer Connector (UY7)



2056936

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 13857223
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 280, 630 Metri-Pack Series, Sealed(BK)

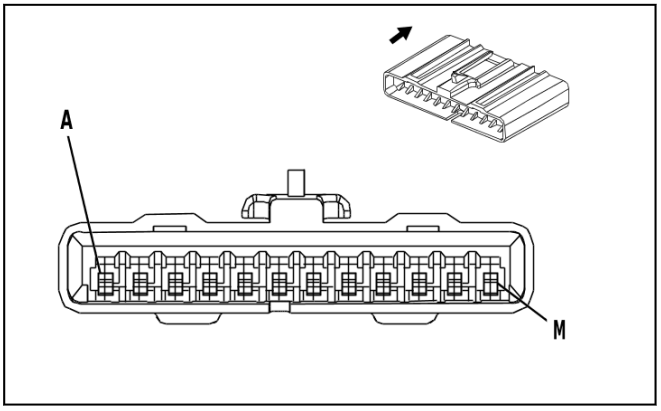
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

X88 Trailer Connector (UY7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GN	1624	Trailer Backup Lamp Control	II	—
B	8	WH	22	Trailer Ground	I	—
C	3	BU	47	Trailer Auxiliary Control	II	—
D	1	GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD / BK	742	Battery Positive Voltage	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

JX200 Splice Pack



966355

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12176461
- Service Connector: 15305914
- Description: 12-Way F 150 GT Series(BK)

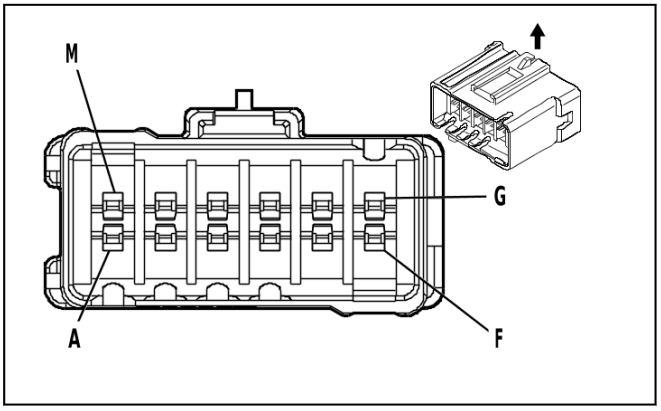
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13591480	J-35616-14 (GN)	J-38125-215A

JX200 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
B	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
C	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
D	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
E	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
F	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
G	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
H	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
J	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
K	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
L	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
M	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—

JX250 Splice Pack



803605

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15305288
- Service Connector: 12167610
- Description: 12-Way F 280 Metri-Pack Series(BK)

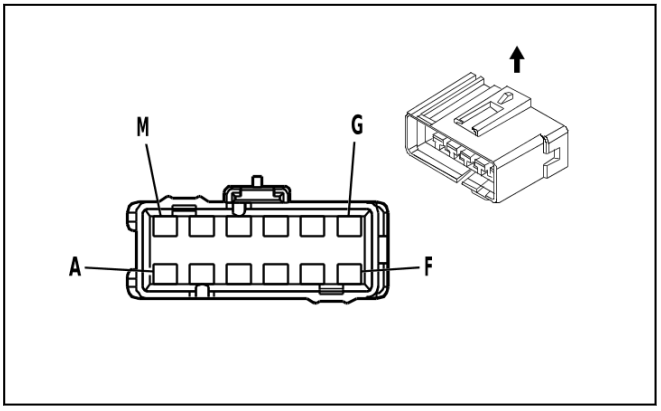
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553

JX250 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
B	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
C	0.5	BU	2500	High Speed GMLAN Serial Data [+] 1	I	—
D - J	—	—	—	Not Occupied	—	—
K	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
L	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—
M	0.5	WH	2501	High Speed GMLAN Serial Data [-] 1	I	—

JX347 Splice Pack



365987

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12191928
- Service Connector: 88986418
- Description: 12-Way F 280 Metri-Pack Series(BK)

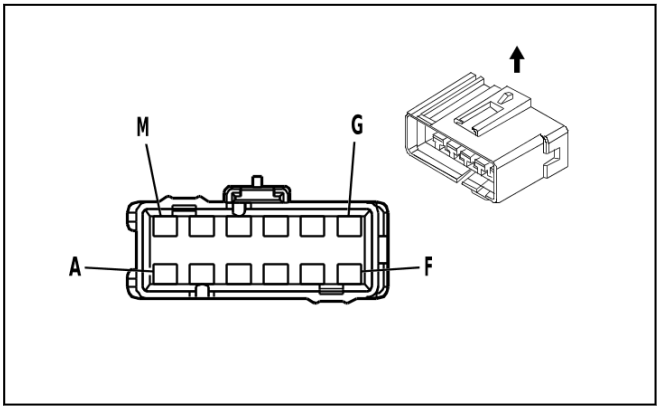
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553
II	13579958	J-35616-4A (PU)	J-38125-11A
III	19330177	J-35616-4A (PU)	J-38125-11A

JX347 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	BK	450	Ground	III	—
B	—	—	—	Not Occupied	—	—
C	0.35	BK	450	Ground	I	—
D	0.35	BK	450	Ground	I	—
E	5	BK	450	Ground	II	—
F	—	—	—	Not Occupied	—	—
G	5	BK	450	Ground	II	—
H	—	—	—	Not Occupied	—	—
J	0.5	BK	450	Ground	I	—
K - L	—	—	—	Not Occupied	—	—
M	3	BK	450	Ground	III	—

JX348 Splice Pack



365987

Connector Part Information

- Harness Type: Body Wiring Harness
- OEM Connector: 12191928
- Service Connector: 88986418
- Description: 12-Way F 280 Metri-Pack Series(BK)

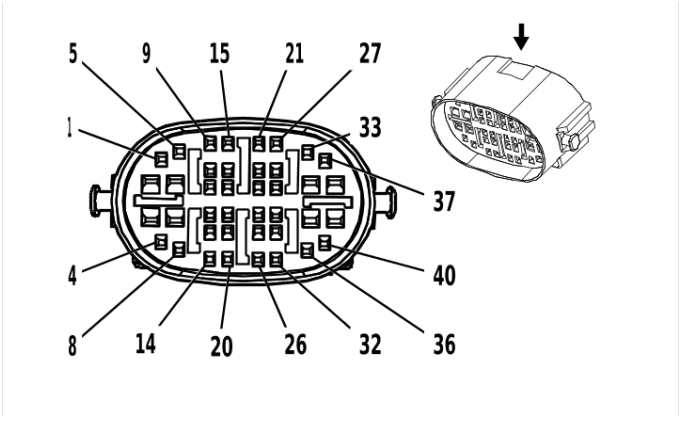
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575721	J-35616-4A (PU)	J-38125-553
II	19330177	J-35616-4A (PU)	J-38125-11A

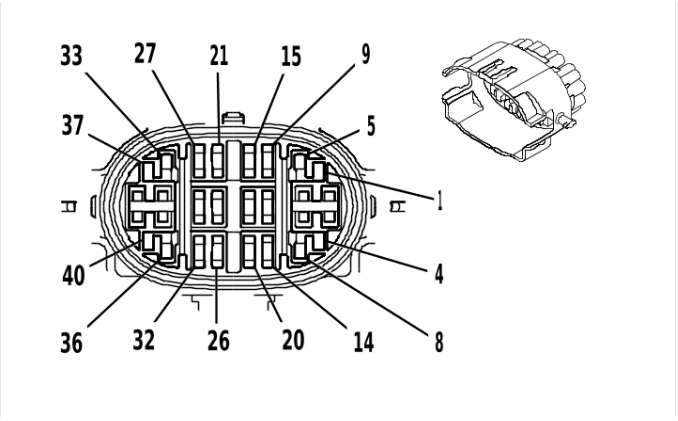
JX348 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	0.8	BK	1850	Ground	I	—
C	3	BK	1850	Ground	II	—
D	0.35	BK	1850	Ground	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	BK	1850	Ground	I	—
G	0.5	BK / WH	2751	Signal Ground	I	—
H	—	—	—	Not Occupied	—	—
J	1	BK	1850	Ground	I	—
K - M	—	—	—	Not Occupied	—	—

X100 Instrument Panel Wiring Harness to Engine Wiring Harness



1713502



1713503

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 13601803
- Service Connector: 19166997
- Description: 40-Way F 150, 280 GT Series, Sealed(BK)

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 13605375
- Service Connector: 19169297
- Description: 40-Way M 150, 280 GT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575354	J-35616-2A (GY)	J-38125-215A
II	13575404	J-35616-4A (PU)	J-38125-215A
III	13575412	J-35616-14 (GN)	J-38125-215A
IV	13576407	J-35616-4A (PU)	J-38125-215A
V	13580824	J-35616-4A (PU)	J-38125-553
VI	19300420	J-35616-14 (GN)	J-38125-559
VII	13575397	J-35616-3 (GY)	J-38125-215A
VIII	13575443	J-35616-5 (PU)	J-38125-215A
IX	13575507	J-35616-5 (PU)	J-38125-215A
X	13576364	J-35616-3 (GY)	J-38125-215A
XI	19368625	J-35616-3 (GY)	J-38125-215A

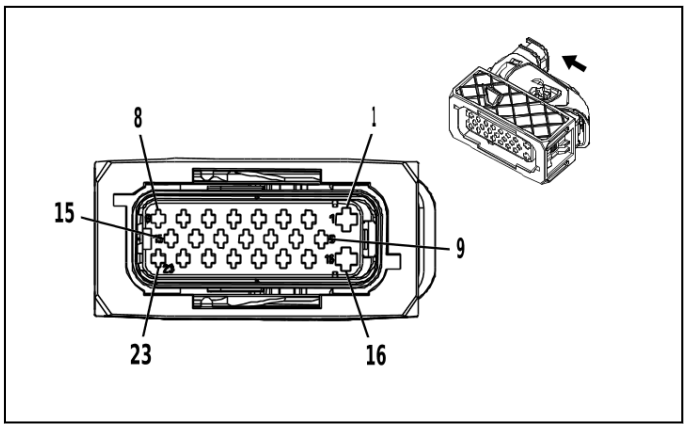
X100 Instrument Panel Wiring Harness to Engine Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) WH / BU	(1) 6311	(1) I	(1) —	(1) Cruise/ETC/TCC Brake Signal	(1) 1	(1) 0.5	(1) WH / BU	(1) 6311	(1) VII	(1) —
(2) 2	(2) 0.8	(2) OG	(2) 52	(2) II	(2) —	(2) Blower Motor High Speed Control	(2) 2	(2) 1	(2) WH / BK	(2) 52	(2) IX	(2) —
(3) 3	(3) 0.8	(3) BU	(3) 72	(3) II	(3) —	(3) Blower Motor Medium 2 Control	(3) 3	(3) 2	(3) BU / YE	(3) 72	(3) VIII	(3) —
4 - 5	—	—	—	—	—	Not Occupied	4 - 5	—	—	—	—	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(6) 6	(6) 0.8	(6) TN	(6) 63	(6) II	(6) —	(6) Blower Motor Medium 1 Control	(6) 6	(6) 1	(6) YE / BN	(6) 63	(6) IX	(6) —
(7) 7	(7) 2	(7) BK	(7) 1250	(7) IV	(7) —	(7) Ground	(7) 7	(7) 2	(7) BK	(7) 1250	(7) VIII	(7) —
(8) 8	(8) 0.8	(8) YE	(8) 60	(8) III	(8) —	(8) Blower Motor Low Speed Control	(8) 8	(8) 1	(8) YE	(8) 60	(8) X	(8) —
9 - 13	—	—	—	—	—	Not Occupied	9 - 13	—	—	—	—	—
(14) 14	(14) 0.5	(14) GN	(14) 66	(14) I	(14) —	(14) Air Conditioning Request Signal	(14) 14	(14) 0.5	(14) BN	(14) 66	(14) VII	(14) —
(15) 15	(15) 0.5	(15) WH / BU	(15) 5986	(15) I	(15) —	(15) Serial Data Communication Enable	(15) 15	(15) 0.5	(15) WH / BU	(15) 5986	(15) VII	(15) —
(16) 16	(16) 0.5	(16) GN	(16) 66	(16) I	(16) —	(16) Air Conditioning Request Signal	(16) 16	(16) 0.5	(16) BN / WH	(16) 66	(16) VII	(16) —
(17) 17	(17) 0.75	(17) GN / GY	(17) 333	(17) III	(17) —	(17) Brake Fluid Level Signal	(17) 17	(17) 0.75	(17) GN / GY	(17) 333	(17) X	(17) —
(18) 18	(18) 0.5	(18) BN / WH	(18) 419	(18) I	(18) —	(18) Check Engine Indicator Control	(18) 18	(18) 0.5	(18) BN / WH	(18) 419	(18) VII	(18) —
(19) 19	(19) 0.5	(19) BU	(19) 5985	(19) I	(19) —	(19) Accessory Wake-Up Serial Data	(19) 19	(19) 0.5	(19) VT / YE	(19) 5985	(19) VII	(19) —
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
(21) 21	(21) 0.35	(21) BK / BU	(21) 1271	(21) VI	(21) —	(21) Accelerator Pedal Position Low Reference 1	(21) 21	(21) 0.5	(21) BK / BU	(21) 1271	(21) XI	(21) —
(22) 22	(22) 0.35	(22) WH / RD	(22) 1164	(22) VI	(22) —	(22) Accelerator Pedal Position 5V Reference 1	(22) 22	(22) 0.5	(22) WH / RD	(22) 1164	(22) XI	(22) —
(23) 23	(23) 0.35	(23) BN / RD	(23) 1274	(23) VI	(23) —	(23) Accelerator Pedal Position 5V Reference 2	(23) 23	(23) 0.5	(23) BN / RD	(23) 1274	(23) XI	(23) —
(24) 24	(24) 0.5	(24) BK / WH	(24) 451	(24) I	(24) —	(24) Signal Ground	(24) 24	(24) 0.75	(24) BK / WH	(24) 451	(24) X	(24) —
25 - 26	—	—	—	—	—	Not Occupied	25 - 26	—	—	—	—	—
(27) 27	(27) 0.35	(27) YE / WH	(27) 1161	(27) VI	(27) —	(27) Accelerator Pedal Position Signal 1	(27) 27	(27) 0.5	(27) YE / WH	(27) 1161	(27) XI	(27) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(28) 28	(28) 0.35	(28) BK / VT	(28) 12 72	(28) VI	(28) —	(28) Accelerator Pedal Position Low Reference 2	(28) 28	(28) 0.5	(28) BK / VT	(28) 12 72	(28) XI	(28) —
(29) 29	(29) 0.35	(29) GN / WH	(29) 11 62	(29) VI	(29) —	(29) Accelerator Pedal Position Signal 2	(29) 29	(29) 0.5	(29) GN / WH	(29) 11 62	(29) XI	(29) —
30 - 32	—	—	—	—	—	Not Occupied	30 - 32	—	—	—	—	—
(33) 33	(33) 0.5	(33) BU	(33) 25 00	(33) I	(33) —	(33) High Speed GMLAN Serial Data [+] 1	(33) 33	(33) 0.5	(33) BU	(33) 25 00	(33) VII	(33) —
(34) 34	(34) 0.5	(34) BK / GN	(34) 58 0	(34) V	(34) —	(34) Engine Control Sensors Low Reference 2	(34) 34	(34) 0.5	(34) BK / GN	(34) 58 0	(34) IX	(34) —
(35) 35	(35) 0.5	(35) BU / GY	(35) 63 6	(35) V	(35) —	(35) Ambient Air Temperature Sensor Signal	(35) 35	(35) 0.5	(35) BU / GY	(35) 63 6	(35) IX	(35) —
(36) 36	(36) 0.5	(36) BU	(36) 25 00	(36) I	(36) —	(36) High Speed GMLAN Serial Data [+] 1	(36) 36	(36) 0.5	(36) BU	(36) 25 00	(36) VII	(36) —
(37) 37	(37) 0.5	(37) WH	(37) 25 01	(37) I	(37) —	(37) High Speed GMLAN Serial Data [-] 1	(37) 37	(37) 0.5	(37) WH	(37) 25 01	(37) VII	(37) —
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
(40) 40	(40) 0.5	(40) WH	(40) 25 01	(40) I	(40) —	(40) High Speed GMLAN Serial Data [-] 1	(40) 40	(40) 0.5	(40) WH	(40) 25 01	(40) VII	(40) —

X101 Engine Wiring Harness to Chassis Wiring Harness



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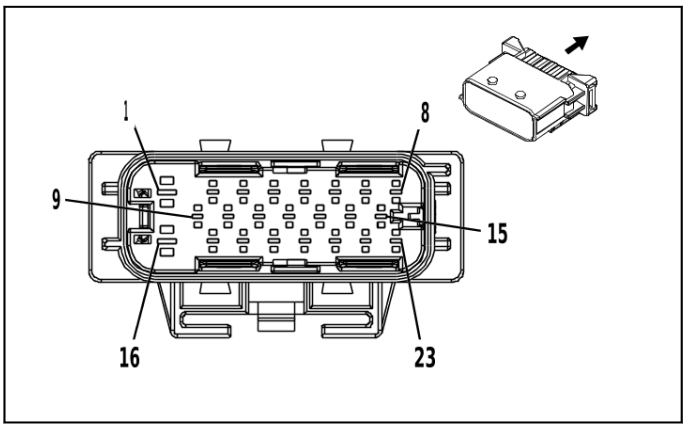


2906943

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 13674800
- Service Connector: 19300480
- Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 13674783
- Service Connector: Service by Harness - See Part Catalog
- Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed(BK)

Terminal Part Information

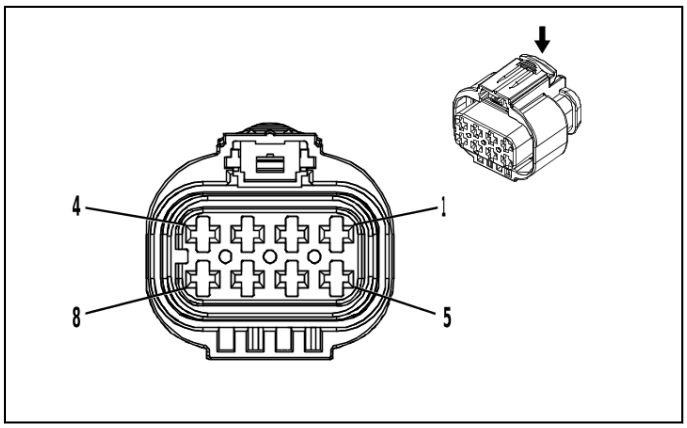
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368143	J-35616-14 (GN)	J-38125-215A
II	Not required	J-35616-3 (GY)	No Tool Required

X101 Engine Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
(2) 2	(2) 0.5	(2) BU	(2) 2500	(2) I	(2) —	(2) High Speed GMLAN Serial Data [+] 1	(2) 2	(2) 0.5	(2) BU	(2) 2500	(2) II	(2) —
(3) 3	(3) 0.5	(3) WH	(3) 2501	(3) I	(3) —	(3) High Speed GMLAN Serial Data [-] 1	(3) 3	(3) 0.5	(3) WH	(3) 2501	(3) II	(3) —
(4) 4	(4) 0.5	(4) YE	(4) 2375	(4) I	(4) —	(4) Left Rear Outer Parking Assist Sensor Signal	(4) 4	(4) 0.5	(4) YE	(4) 2375	(4) II	(4) —
(5) 5	(5) 0.5	(5) YE / BU	(5) 2376	(5) I	(5) —	(5) Left Rear Middle Parking Assist Sensor Signal	(5) 5	(5) 0.5	(5) YE / BU	(5) 2376	(5) II	(5) —
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
(7) 7	(7) 0.5	(7) BK / GY	(7) 2379	(7) I	(7) —	(7) Object Sensor Low Reference	(7) 7	(7) 0.5	(7) BK / GY	(7) 2379	(7) II	(7) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(8) 8	(8) 0.5	(8) GN / GY	(8) 465	(8) I	(8) —	(8) Fuel Pump Primary Relay Control	(8) 8	(8) 0.5	(8) GN / GY	(8) 465	(8) II	(8) —
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
(10) 10	(10) 0.5	(10) YE / WH	(10) 2377	(10) I	(10) —	(10) Right Rear Middle Parking Assist Sensor Signal	(10) 10	(10) 0.5	(10) YE / WH	(10) 2377	(10) II	(10) —
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
(12) 12	(12) 0.5	(12) VT / GN	(12) 4320	(12) I	(12) —	(12) Powertrain Sensor Bus Enable	(12) 12	(12) 0.5	(12) VT / GN	(12) 4320	(12) II	(12) —
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
(14) 14	(14) 0.5	(14) BN / WH	(14) 2374	(14) I	(14) —	(14) Object Sensor Voltage Reference	(14) 14	(14) 0.5	(14) BN / WH	(14) 2374	(14) II	(14) —
(15) 15	(15) 0.5	(15) YE / VT	(15) 2378	(15) I	(15) —	(15) Right Rear Outer Parking Assist Sensor Signal	(15) 15	(15) 0.5	(15) YE / VT	(15) 2378	(15) II	(15) —
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—
(17) 17	(17) 0.5	(17) BU / BN	(17) 4498	(17) I	(17) —	(17) High Speed GMLAN Serial Data [+] 7	(17) 17	(17) 0.5	(17) BU / BN	(17) 4498	(17) II	(17) —
(18) 18	(18) 0.5	(18) WH	(18) 4499	(18) I	(18) —	(18) High Speed GMLAN Serial Data [-] 7	(18) 18	(18) 0.5	(18) WH	(18) 4499	(18) II	(18) —
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
(20) 20	(20) 0.5	(20) WH / BU	(20) 5986	(20) I	(20) —	(20) Serial Data Communication Enable	(20) 20	(20) 0.5	(20) WH / BU	(20) 5986	(20) II	(20) —
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
(22) 22	(22) 0.5	(22) BU	(22) 2500	(22) I	(22) —	(22) High Speed GMLAN Serial Data [+] 1	(22) 22	(22) 0.5	(22) BU	(22) 2500	(22) II	(22) —
(23) 23	(23) 0.5	(23) WH	(23) 2501	(23) I	(23) —	(23) High Speed GMLAN Serial Data [-] 1	(23) 23	(23) 0.5	(23) WH	(23) 2501	(23) II	(23) —

X102 Chassis Wiring Harness to Fuel Tank Wiring Harness



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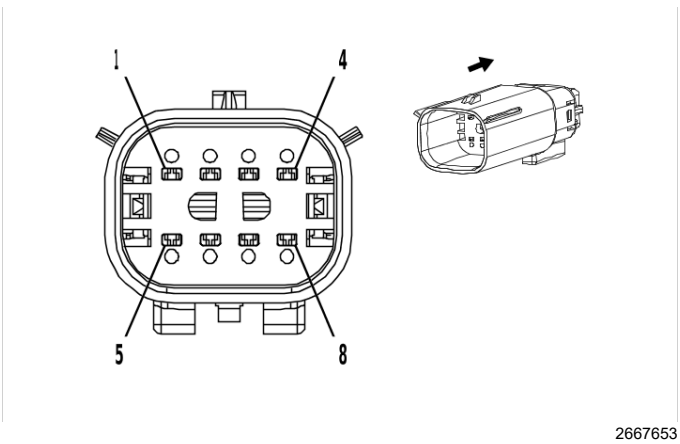


2667653

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 2-2109441-5
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 2.8 Series, Sealed(L-GY)

Connector Part Information
- Harness Type: Fuel Tank Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way M (L-GY)

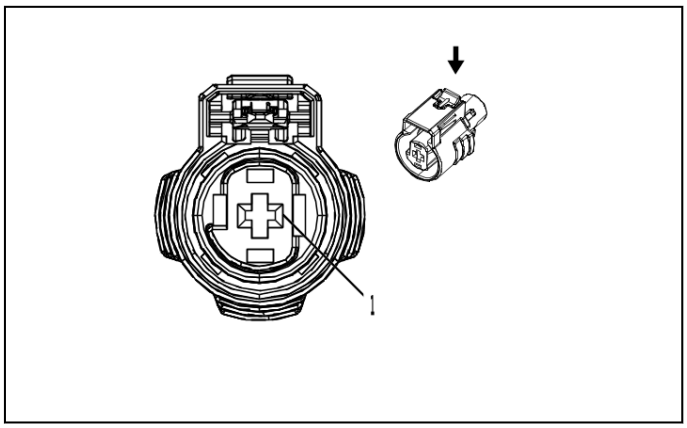
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	Not required	No Tool Required	No Tool Required

X102 Chassis Wiring Harness to Fuel Tank Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 2.5	(1) GY	(1) 120	(1) I	(1) —	(1) Fuel Pump Control	(1) 1	(1) 2.5	(1) GY	(1) 120	(1) III	(1) —
(2) 2	(2) 2.5	(2) YE / GY	(2) 4137	(2) I	(2) —	(2) Fuel Pump Supply Voltage Phase 2	(2) 2	(2) 2.5	(2) YE / GY	(2) 4137	(2) III	(2) —
(3) 3	(3) 2.5	(3) WH / BN	(3) 4138	(3) I	(3) —	(3) Fuel Pump Supply Voltage Phase 3	(3) 3	(3) 2.5	(3) WH / BN	(3) 4138	(3) III	(3) —
(4) 4	(4) 0.5	(4) BK	(4) 7444	(4) II	(4) —	(4) Fuel Pump Assembly Shield Ground	(4) 4	(4) 0.5	(4) BK	(4) 7444	(4) III	(4) —
(5) 5	(5) 0.5	(5) BU / VT	(5) 1589	(5) II	(5) —	(5) Primary Fuel Level Sensor Signal	(5) 5	(5) 0.5	(5) BU / VT	(5) 1589	(5) III	(5) —
(6) 6	(6) 0.5	(6) BK / GN	(6) 6281	(6) II	(6) —	(6) Fuel Level Sensor Low Reference	(6) 6	(6) 0.5	(6) BK / GN	(6) 6281	(6) III	(6) —
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness



2717134

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Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 2098198-5
- Service Connector: 19300471
- Description: 1-Way F 2.8 MCP Series, Sealed(BK)

Connector Part Information
- Harness Type: Starter Motor Jumper Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way M (BK)

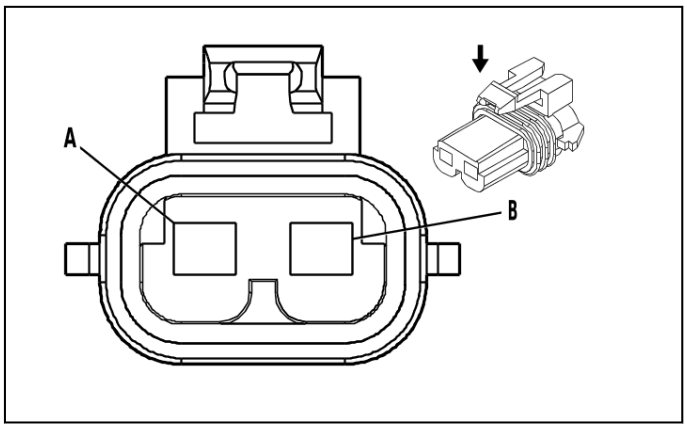
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 4	(1) YE	(1) 6	(1) I	(1) —	(1) Starter Solenoid Crank Ignition Voltage	(1) 1	(1) 4	(1) YE	(1) 6	(1) II	(1) —

X104 Instrument Panel Wiring Harness to Front Seat Wiring Harness



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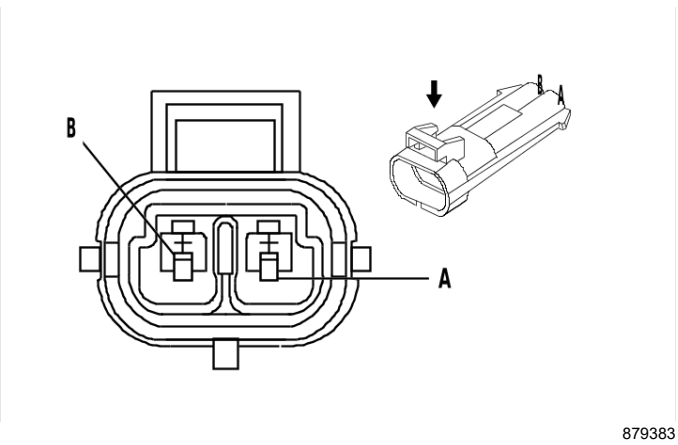


879383

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12077900
- Service Connector: 12116247
- Description: 2-Way F 280 Metri-Pack Series, Sealed(BK)

Connector Part Information
- Harness Type: Front Seat Wiring Harness
- OEM Connector: 15317807
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 280 Metri-Pack Series(BK)

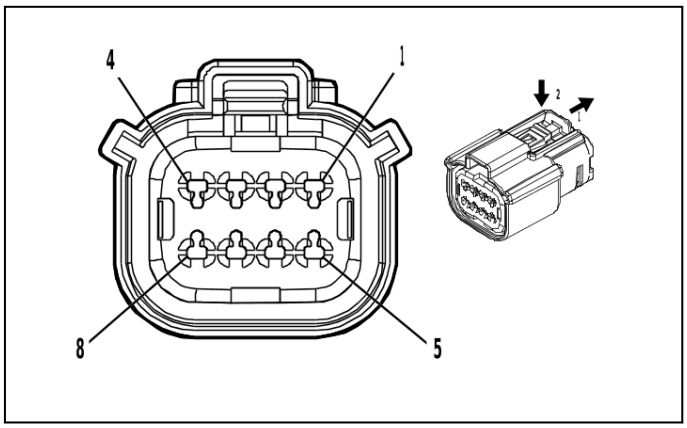
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X104 Instrument Panel Wiring Harness to Front Seat Wiring Harness

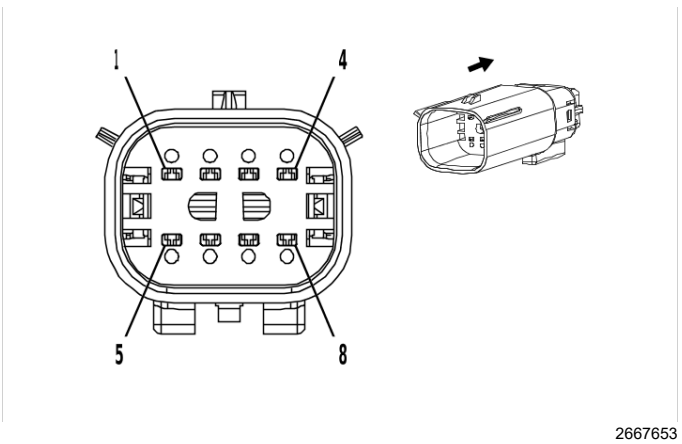
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BU / WH	6619	I	—	Front Middle Impact Discriminating Sensor Low Reference	A	0.5	BU / WH	6619	II	—
B	0.5	BN / WH	6618	I	—	Front Middle Impact Discriminating Sensor Signal	B	0.5	BN / WH	6618	II	—

X130 Engine Wiring Harness to Camshaft Position Sensor Wire



4846407

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 33472-4877
- Service Connector: 84928314
- Description: 8-Way F 1.5 MX Series, Sealed(BK)



2667653

Connector Part Information
- Harness Type: Camshaft Position Sensor Wire
- OEM Connector: 13520589
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

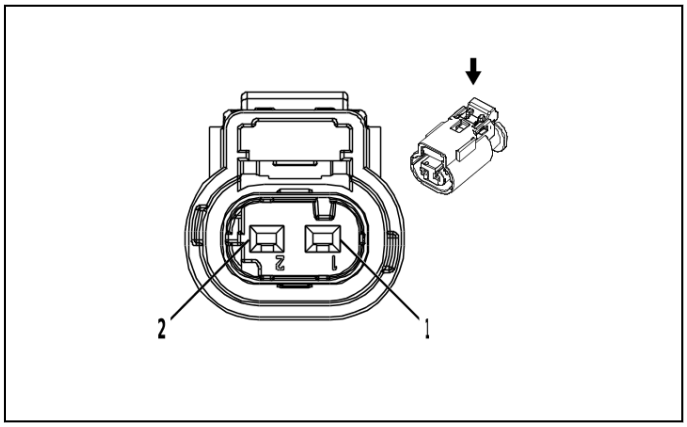
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X130 Engine Wiring Harness to Camshaft Position Sensor Wire

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / BU	(1) 5300	(1) I	(1) —	(1) Intake Camshaft Position Sensor 1 Voltage Reference	(1) 1	(1) 0.5	(1) GY / BU	(1) 5300	(1) II	(1) —
(2) 2	(2) 0.5	(2) BK / GN	(2) 5301	(2) I	(2) —	(2) Intake Camshaft Position Sensor Low Reference 1	(2) 2	(2) 0.5	(2) BK / GN	(2) 5301	(2) II	(2) —
(3) 3	(3) 0.5	(3) YE / VT	(3) 5275	(3) I	(3) —	(3) Intake Camshaft Position Sensor 1	(3) 3	(3) 0.5	(3) YE / VT	(3) 5275	(3) II	(3) —
(4) 4	(4) 0.5	(4) BU	(4) 179	(4) I	(4) —	(4) Engine Oil Pump Control	(4) 4	(4) 0.5	(4) BU	(4) 179	(4) II	(4) —
(5) 5	(5) 0.5	(5) VT / BN	(5) 5284	(5) I	(5) —	(5) Intake Camshaft Position Actuator Solenoid Valve 1	(5) 5	(5) 0.5	(5) VT / BN	(5) 5284	(5) II	(5) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(6) 6	(6) 0.5	(6) BK / BN	(6) 6753	(6) I	(6) —	(6) Camshaft Position Actuator Solenoid Valve W Low Reference	(6) 6	(6) 0.5	(6) BK / BN	(6) 6753	(6) II	(6) —
(7) 7	(7) 0.5	(7) VT / BU	(7) 5293	(7) I	(7) —	(7) Powertrain Main Relay Fused Supply Voltage 4	(7) 7	(7) 0.5	(7) VT / BU	(7) 5293	(7) II	(7) —
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X135 Camshaft Position Sensor Wire to Oil Pump Flow Control Solenoid Valve Wire (L8T)



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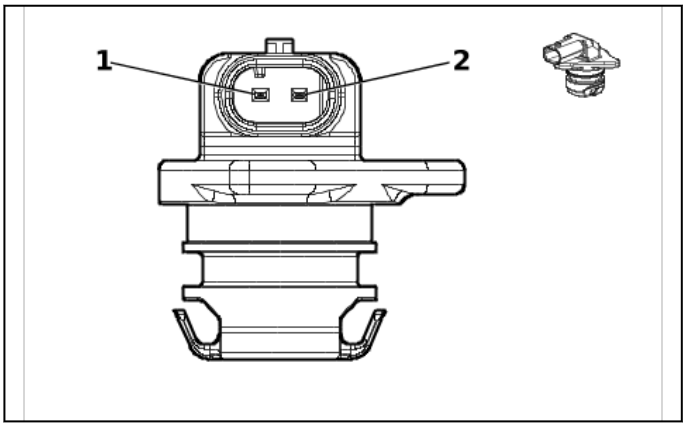


5869753

Connector Part Information
- Harness Type: Camshaft Position Sensor Wire
- OEM Connector: 10010337
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

Connector Part Information
- Harness Type: Oil Pump Flow Control Solenoid Valve Wire
- OEM Connector: 310832B
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 1.2 Series, Sealed(BK)

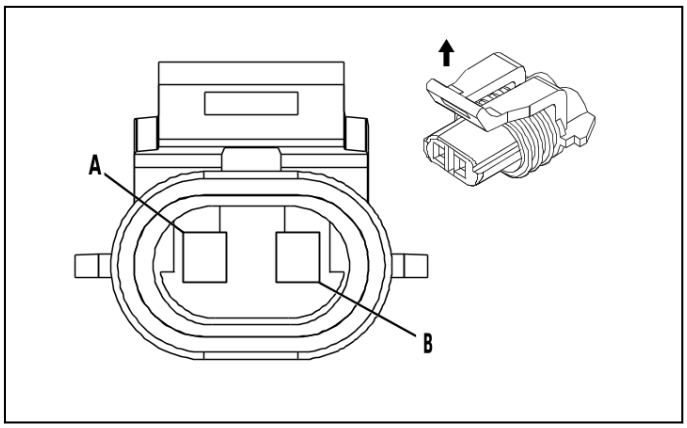
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-13 (BU)	No Tool Required

X135 Camshaft Position Sensor Wire to Oil Pump Flow Control Solenoid Valve Wire (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) VT / BU	(1) 5293	(1) I	(1) —	(1) Powertrain Main Relay Fused Supply Voltage 4	(1) 1	(1) 0.5	(1) VT / BU	(1) 5293	(1) II	(1) —
(2) 2	(2) 0.5	(2) BU	(2) 179	(2) I	(2) —	(2) Engine Oil Pump Control	(2) 2	(2) 0.5	(2) BU	(2) 179	(2) II	(2) —

X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness (UJ1)



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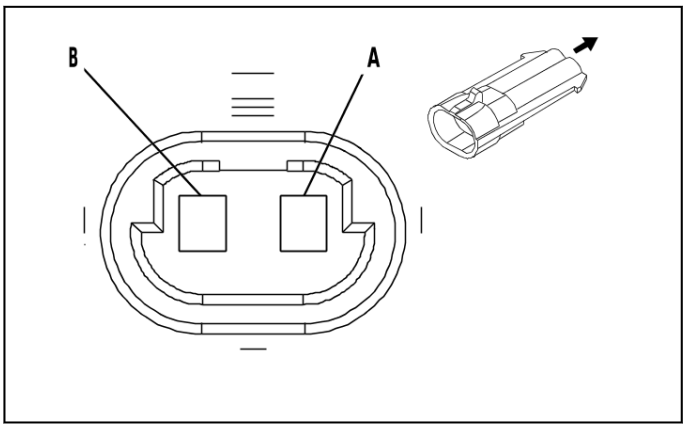


605500

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12052644
- Service Connector: 19368034
- Description: 2-Way F 150 Metri-Pack Series, Sealed(GY)

Connector Part Information
- Harness Type: Brake Fluid Level Indicator Wiring Harness
- OEM Connector: 12162343
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 150 Metri-Pack Series, Sealed(GY)

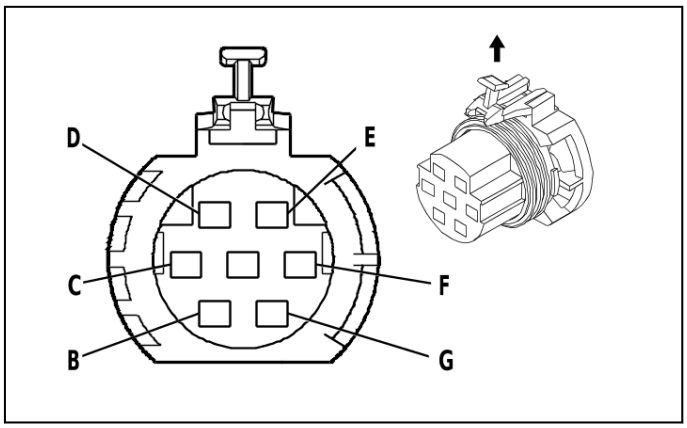
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness (UJ1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	TN / WH	33	I	—	Brake Warning Indicator Control	A	0.5	TN / WH	33	II	—
B	0.5	BK / WH	351	I	—	Signal Ground	B	0.5	BK	350	II	—

X150 Instrument Panel Wiring Harness to Forward Lamp Wiring Harness



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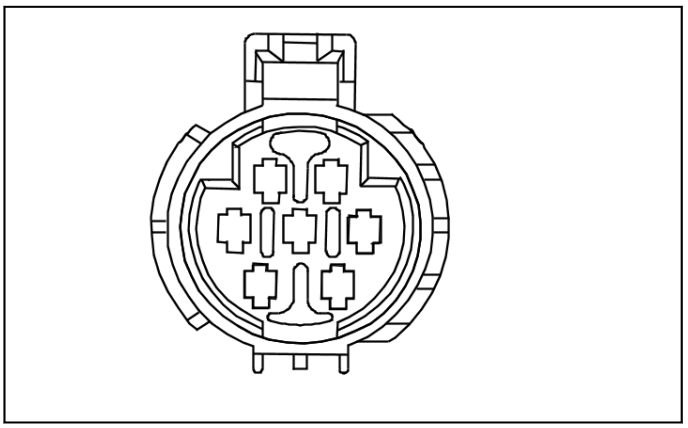


258231

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12110751
- Service Connector: 12110751
- Description: 7-Way F 280 Metri-Pack Flexlock Series, Sealed(BK)

Connector Part Information
- Harness Type: Forward Lamp Wiring Harness
- OEM Connector: 12110753
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way M 280 Metri-Pack Series, Sealed(BK)

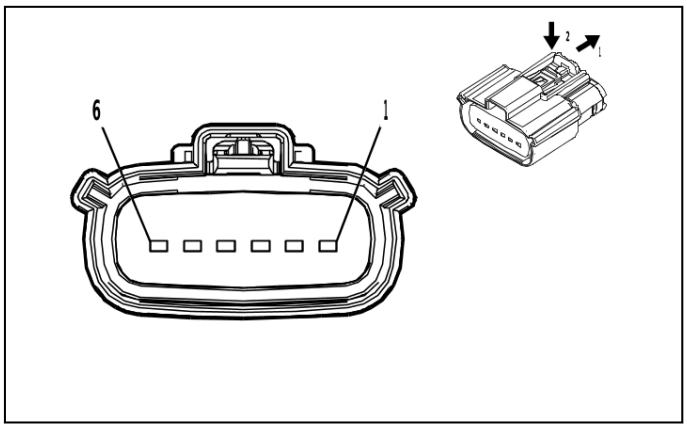
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X150 Instrument Panel Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PK / BK	109	I	—	Hood Ajar Switch Signal	A	0.5	BN / BK	109	II	—
B	0.5	PU	5531	I	—	Hood Closed Switch Signal	B	0.5	BK / BN	5531	II	—
C	0.5	BU / GY	636	I	—	Ambient Air Temperature Sensor Signal	C	0.5	BU / GY	636	II	—
D	0.5	BK / BU	61	I	—	Ambient Air Temperature Sensor Low Reference	D	0.5	BK / BU	61	II	—
E	0.5	BK / YE	580	I	—	Engine Control Sensors Low Reference 2	E	0.5	BK / YE	580	II	—
F	0.5	BU / GY	636	I	—	Ambient Air Temperature Sensor Signal	F	0.5	BU / GY	636	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—

X155 Engine Wiring Harness to Engine Coolant Temperature Sensor Harness (L8T)



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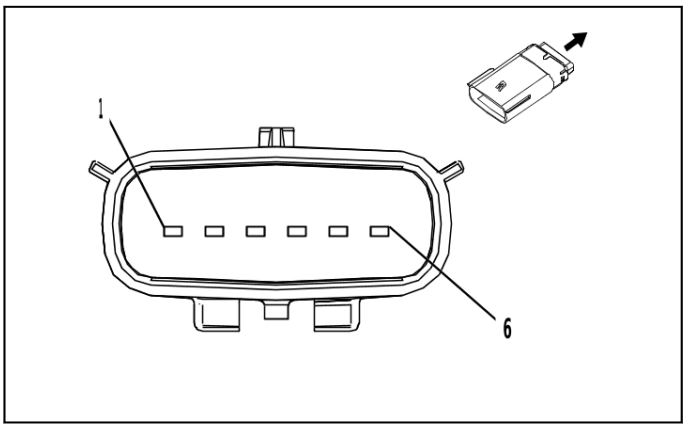


3277908

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 33471-6006
- Service Connector: 86801953
- Description: 6-Way F 1.5 Series, Sealed(BK)

Connector Part Information
- Harness Type: Engine Coolant Temperature Sensor Harness
- OEM Connector: 13526225
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M 1.5 MX Series, Sealed(BK)

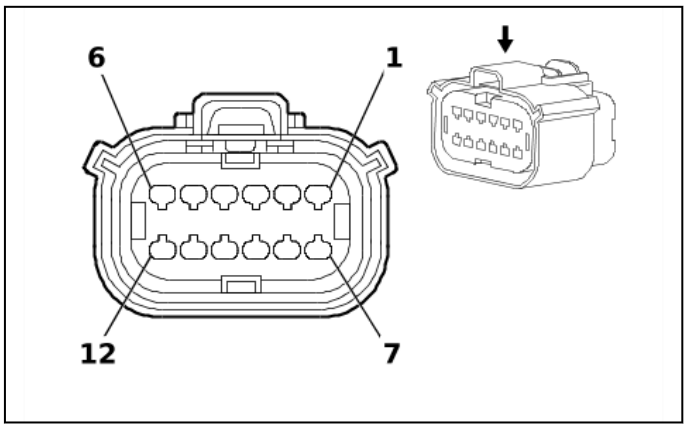
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X155 Engine Wiring Harness to Engine Coolant Temperature Sensor Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU	(1) 410	(1) I	(1) —	(1) Engine Coolant Temperature Sensor Signal	(1) 1	(1) 0.5	(1) BU	(1) 410	(1) II	(1) —
(2) 2	(2) 0.5	(2) BK / YE	(2) 548	(2) I	(2) —	(2) Engine Control Sensors Low Reference 1	(2) 2	(2) 0.5	(2) BK / YE	(2) 548	(2) II	(2) —
(3) 3	(3) 0.5	(3) YE / BN	(3) 331	(3) I	(3) —	(3) Oil Pressure Sensor Signal	(3) 3	(3) 0.5	(3) YE / BN	(3) 331	(3) II	(3) —
(4) 4	(4) 0.5	(4) BK / YE	(4) 548	(4) I	(4) —	(4) Engine Control Sensors Low Reference 1	(4) 4	(4) 0.5	(4) BK / YE	(4) 548	(4) II	(4) —
(5) 5	(5) 0.5	(5) W H / RD	(5) 480	(5) I	(5) —	(5) Engine Control Vehicle Sensors 5 Volt Reference 1	(5) 5	(5) 0.5	(5) W H / RD	(5) 480	(5) II	(5) —
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)



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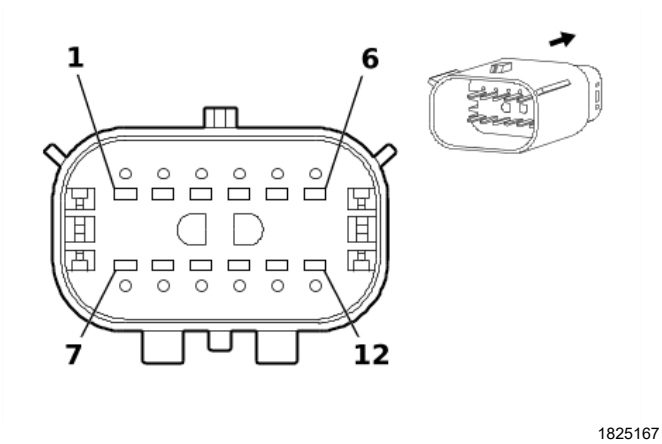


1825167

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 33472-1216
- Service Connector: 19352907
- Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 13520581
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

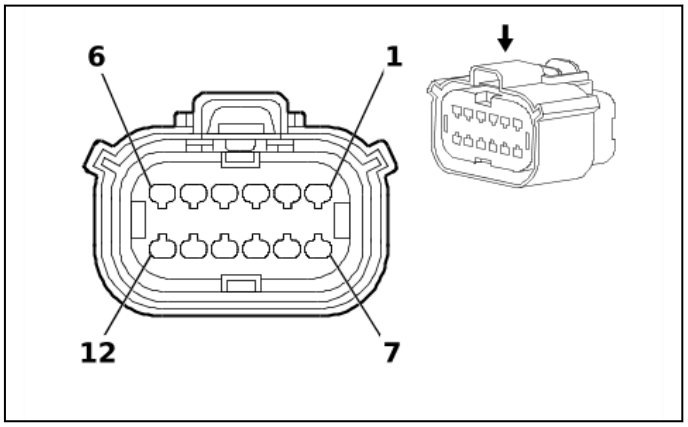
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BN / WH	(1) 4901	(1) I	(1) —	(1) Direct Fuel Injector High Voltage Supply Cylinder 1	(1) 1	(1) 0.75	(1) BN / WH	(1) 4901	(1) II	(1) —
(2) 2	(2) 0.75	(2) GN / GY	(2) 4903	(2) I	(2) —	(2) Direct Fuel Injector High Voltage Supply Cylinder 3	(2) 2	(2) 0.75	(2) GN / GY	(2) 4903	(2) II	(2) —
(3) 3	(3) 0.75	(3) GN / WH	(3) 4905	(3) I	(3) —	(3) Direct Fuel Injector High Voltage Supply Cylinder 5	(3) 3	(3) 0.75	(3) GN / WH	(3) 4905	(3) II	(3) —
(4) 4	(4) 0.75	(4) WH / YE	(4) 4907	(4) I	(4) —	(4) Direct Fuel Injector High Voltage Supply Cylinder 7	(4) 4	(4) 0.75	(4) WH / YE	(4) 4907	(4) II	(4) —
(5) 5	(5) 0.75	(5) BN	(5) 4801	(5) I	(5) —	(5) Direct Fuel Injector High Voltage Control Cylinder 1	(5) 5	(5) 0.75	(5) BN	(5) 4801	(5) II	(5) —
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(7) 7	(7) 0.75	(7) GN	(7) 4803	(7) I	(7) —	(7) Direct Fuel Injector High Voltage Control Cylinder 3	(7) 7	(7) 0.75	(7) GN	(7) 4803	(7) II	(7) —
(8) 8	(8) 0.75	(8) WH / GN	(8) 4805	(8) I	(8) —	(8) Direct Fuel Injector High Voltage Control Cylinder 5	(8) 8	(8) 0.75	(8) WH / GN	(8) 4805	(8) II	(8) —
(9) 9	(9) 0.75	(9) YE / GY	(9) 4807	(9) I	(9) —	(9) Direct Fuel Injector High Voltage Control Cylinder 7	(9) 9	(9) 0.75	(9) YE / GY	(9) 4807	(9) II	(9) —
(10) 10	(10) 0.5	(10) WH / RD	(10) 480	(10) I	(10) —	(10) Engine Control Vehicle Sensors 5 Volt Reference 1	(10) 10	(10) 0.5	(10) WH / RD	(10) 480	(10) II	(10) —
(11) 11	(11) 0.5	(11) BU / WH	(11) 2918	(11) I	(11) —	(11) Fuel Rail Pressure Sensor Signal	(11) 11	(11) 0.5	(11) BU / WH	(11) 2918	(11) II	(11) —
(12) 12	(12) 0.5	(12) BK / YE	(12) 548	(12) I	(12) —	(12) Engine Control Sensors Low Reference 1	(12) 12	(12) 0.5	(12) BK / YE	(12) 548	(12) II	(12) —

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)



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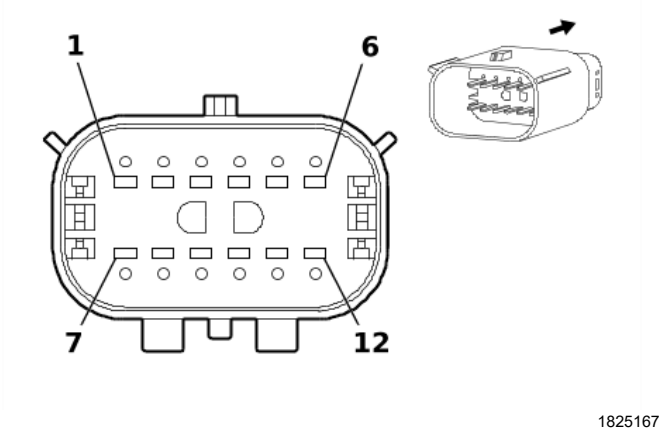


1825167

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 33472-1236
- Service Connector: 19352907
- Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 33482-6216
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M 1.5 MX Series, Sealed(BK)

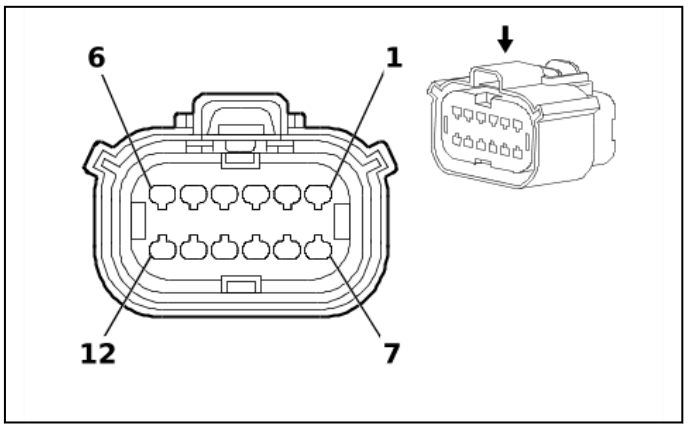
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
(2) 2	(2) 0.75	(2) BN / WH	(2) 4901	(2) I	(2) —	(2) Direct Fuel Injector High Voltage Supply Cylinder 1	(2) 2	(2) 0.8	(2) BN / WH	(2) 4901	(2) II	(2) —
(3) 3	(3) 0.75	(3) GN / GY	(3) 4903	(3) I	(3) —	(3) Direct Fuel Injector High Voltage Supply Cylinder 3	(3) 3	(3) 0.8	(3) GN / GY	(3) 4903	(3) II	(3) —
(4) 4	(4) 0.75	(4) GN / WH	(4) 4905	(4) I	(4) —	(4) Direct Fuel Injector High Voltage Supply Cylinder 5	(4) 4	(4) 0.8	(4) GN / WH	(4) 4905	(4) II	(4) —
(5) 5	(5) 0.75	(5) BN	(5) 4801	(5) I	(5) —	(5) Direct Fuel Injector High Voltage Control Cylinder 1	(5) 5	(5) 0.8	(5) BN	(5) 4801	(5) II	(5) —
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
(8) 8	(8) 0.75	(8) GN	(8) 4803	(8) I	(8) —	(8) Direct Fuel Injector High Voltage Control Cylinder 3	(8) 8	(8) 0.8	(8) GN	(8) 4803	(8) II	(8) —
(9) 9	(9) 0.75	(9) WH / GN	(9) 4805	(9) I	(9) —	(9) Direct Fuel Injector High Voltage Control Cylinder 5	(9) 9	(9) 0.8	(9) WH / GN	(9) 4805	(9) II	(9) —
(10) 10	(10) 0.5	(10) WH / RD	(10) 480	(10) I	(10) —	(10) Engine Control Vehicle Sensors 5 Volt Reference 1	(10) 10	(10) 0.5	(10) WH / RD	(10) 480	(10) II	(10) —
(11) 11	(11) 0.5	(11) BU / WH	(11) 2918	(11) I	(11) —	(11) Fuel Rail Pressure Sensor Signal	(11) 11	(11) 0.5	(11) BU / WH	(11) 2918	(11) II	(11) —
(12) 12	(12) 0.5	(12) BK / YE	(12) 548	(12) I	(12) —	(12) Engine Control Sensors Low Reference 1	(12) 12	(12) 0.5	(12) BK / YE	(12) 548	(12) II	(12) —

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)



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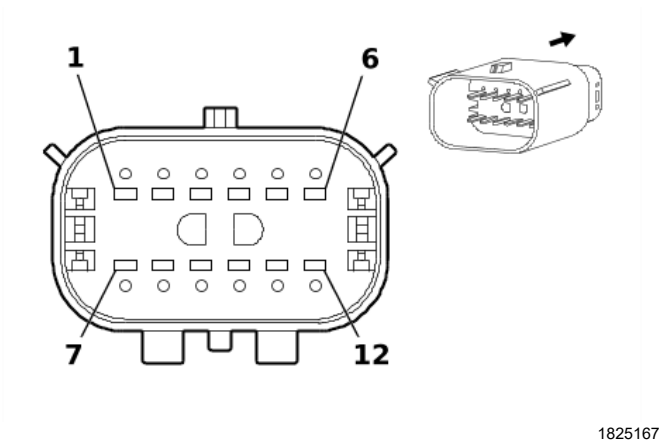


1825167

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 33472-1226
- Service Connector: 19352907
- Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: 334826211
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

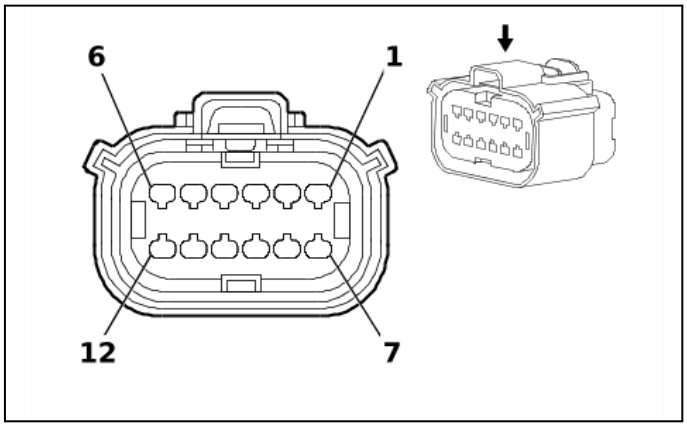
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.75	(1) BU / GY	(1) 4902	(1) I	(1) —	(1) Direct Fuel Injector High Voltage Supply Cylinder 2	(1) 1	(1) 0.75	(1) BU / GY	(1) 4902	(1) II	(1) —
(2) 2	(2) 0.75	(2) BU / WH	(2) 4904	(2) I	(2) —	(2) Direct Fuel Injector High Voltage Supply Cylinder 4	(2) 2	(2) 0.75	(2) BU / WH	(2) 4904	(2) II	(2) —
(3) 3	(3) 0.75	(3) VT / GY	(3) 4906	(3) I	(3) —	(3) Direct Fuel Injector High Voltage Supply Cylinder 6	(3) 3	(3) 0.75	(3) VT / GY	(3) 4906	(3) II	(3) —
(4) 4	(4) 0.75	(4) GY / WH	(4) 4908	(4) I	(4) —	(4) Direct Fuel Injector High Voltage Supply Cylinder 8	(4) 4	(4) 0.75	(4) GY / WH	(4) 4908	(4) II	(4) —
(5) 5	(5) 0.75	(5) BU	(5) 4802	(5) I	(5) —	(5) Direct Fuel Injector High Voltage Control Cylinder 2	(5) 5	(5) 0.75	(5) BU	(5) 4802	(5) II	(5) —
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(8) 8	(8) 0.75	(8) GY / BU	(8) 4804	(8) I	(8) —	(8) Direct Fuel Injector High Voltage Control Cylinder 4	(8) 8	(8) 0.75	(8) GY / BU	(8) 4804	(8) II	(8) —
(9) 9	(9) 0.75	(9) VT / GN	(9) 4806	(9) I	(9) —	(9) Direct Fuel Injector High Voltage Control Cylinder 6	(9) 9	(9) 0.75	(9) VT / GN	(9) 4806	(9) II	(9) —
(10) 10	(10) 0.75	(10) G Y	(10) 4808	(10) I	(10) —	(10) Direct Fuel Injector High Voltage Control Cylinder 8	(10) 10	(10) 0.75	(10) G Y	(10) 4808	(10) II	(10) —
(11) 11	(11) 0.75	(11) V T / BK	(11) 7300	(11) I	(11) —	(11) High Pressure Fuel Pump Low Control	(11) 11	(11) 0.75	(11) V T / BK	(11) 7300	(11) II	(11) —
(12) 12	(12) 0.75	(12) Y E	(12) 7301	(12) I	(12) —	(12) High Pressure Fuel Pump High Control	(12) 12	(12) 0.75	(12) Y E	(12) 7301	(12) II	(12) —

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)



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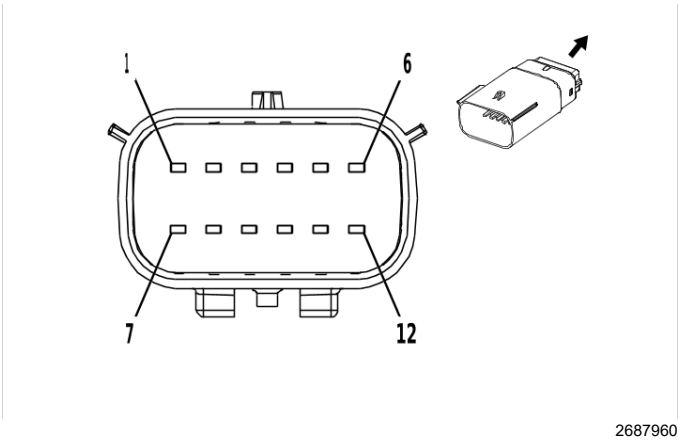


2687960

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 33472-1246
- Service Connector: 19352907
- Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Fuel Injector Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M (BK)

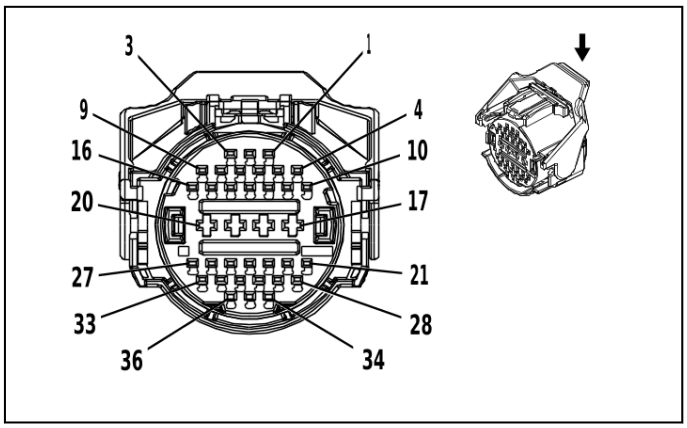
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217
II	Not required	No Tool Required	No Tool Required

X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
(2) 2	(2) 0.75	(2) BU / GY	(2) 4902	(2) I	(2) —	(2) Direct Fuel Injector High Voltage Supply Cylinder 2	(2) 2	(2) 0.75	(2) BU / GY	(2) 4902	(2) II	(2) —
(3) 3	(3) 0.75	(3) BU / WH	(3) 4904	(3) I	(3) —	(3) Direct Fuel Injector High Voltage Supply Cylinder 4	(3) 3	(3) 0.75	(3) BU / WH	(3) 4904	(3) II	(3) —
(4) 4	(4) 0.75	(4) VT / GY	(4) 4906	(4) I	(4) —	(4) Direct Fuel Injector High Voltage Supply Cylinder 6	(4) 4	(4) 0.75	(4) VT / GY	(4) 4906	(4) II	(4) —
(5) 5	(5) 0.75	(5) BU	(5) 4802	(5) I	(5) —	(5) Direct Fuel Injector High Voltage Control Cylinder 2	(5) 5	(5) 0.75	(5) BU	(5) 4802	(5) II	(5) —
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
(8) 8	(8) 0.75	(8) GY / BU	(8) 4804	(8) I	(8) —	(8) Direct Fuel Injector High Voltage Control Cylinder 4	(8) 8	(8) 0.75	(8) GY / BU	(8) 4804	(8) II	(8) —
(9) 9	(9) 0.75	(9) VT / GN	(9) 4806	(9) I	(9) —	(9) Direct Fuel Injector High Voltage Control Cylinder 6	(9) 9	(9) 0.75	(9) VT / GN	(9) 4806	(9) II	(9) —
(10) 10	(10) 0.75	(10) VT / BK	(10) 7300	(10) I	(10) —	(10) High Pressure Fuel Pump Low Control	(10) 10	(10) 0.75	(10) VT / BK	(10) 7300	(10) II	(10) —
(11) 11	(11) 0.75	(11) YE	(11) 7301	(11) I	(11) —	(11) High Pressure Fuel Pump High Control	(11) 11	(11) 0.75	(11) YE	(11) 7301	(11) II	(11) —
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T)



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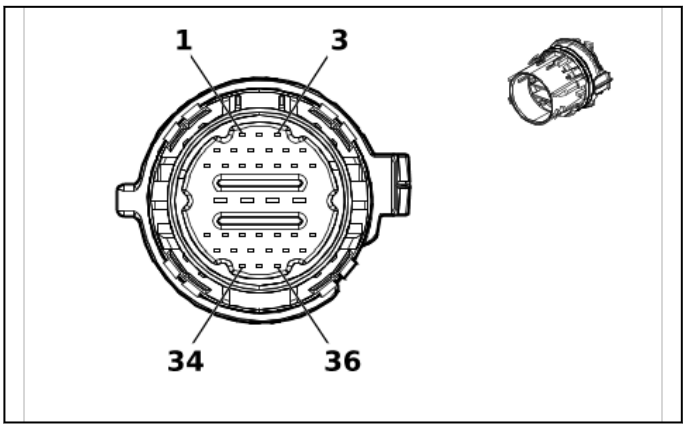


6493751

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 2138314-1
- Service Connector: 19329922
- Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed(BK)

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 2356151-9
- Service Connector: Service by Harness - See Part Catalog
- Description: 36-Way M 1.2 MCON-CB, 2.8 MCP Series, Sealed(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19300445	J-35616-12 (BU)	J-38125-11A
III	Not required	J-35616-17 (L-GN)	No Tool Required

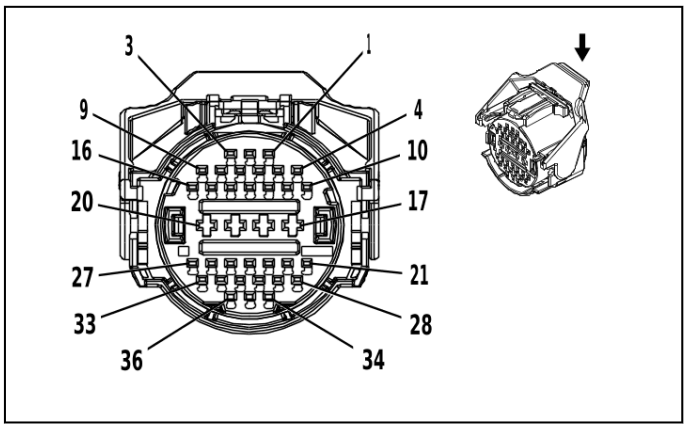
X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN/WH	(1) 6380	(1) II	(1) —	(1) Torque Converter Clutch Enable Solenoid Valve A Control	(1) 1	(1) 0.5	(1) GN/WH	(1) 6380	(1) III	(1) —
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
(3) 3	(3) 0.5	(3) VT/WH	(3) 422	(3) II	(3) —	(3) Torque Converter Clutch Solenoid Valve Control	(3) 3	(3) 0.5	(3) VT/WH	(3) 422	(3) III	(3) —
(4) 4	(4) 0.5	(4) GN/WH	(4) 1530	(4) II	(4) —	(4) Transmission Line Pressure Control Solenoid Valve Control	(4) 4	(4) 0.5	(4) GN/WH	(4) 1530	(4) III	(4) —
(5) 5	(5) 0.5	(5) BN	(5) 6400	(5) II	(5) —	(5) Clutch Solenoid Valve A Control	(5) 5	(5) 0.5	(5) BN	(5) 6400	(5) III	(5) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(6) 6	(6) 0.5	(6) BU	(6) 6401	(6) II	(6) —	(6) Clutch Solenoid Valve B Control	(6) 6	(6) 0.5	(6) BU	(6) 6401	(6) III	(6) —
(7) 7	(7) 0.5	(7) YE / BN	(7) 6210	(7) II	(7) —	(7) Torque Converter Clutch Enable Solenoid Valve B Control	(7) 7	(7) 0.5	(7) YE / BN	(7) 6210	(7) III	(7) —
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
(10) 10	(10) 0.5	(10) G Y	(10) 6402	(10) II	(10) —	(10) Clutch Solenoid Valve C Control	(10) 10	(10) 0.5	(10) G Y	(10) 6402	(10) III	(10) —
(11) 11	(11) 0.5	(11) B K / BN	(11) 586	(11) II	(11) —	(11) Transmission Fluid Temperature Sensor Low Reference	(11) 11	(11) 0.5	(11) B K / BN	(11) 586	(11) III	(11) —
(12) 12	(12) 0.5	(12) B N / WH	(12) 585	(12) II	(12) —	(12) Transmission Fluid Temperature Sensor Signal	(12) 12	(12) 0.5	(12) B N / WH	(12) 585	(12) III	(12) —
(13) 13	(13) 0.5	(13) WH	(13) 4508	(13) II	(13) —	(13) Transmission Clutch G Control	(13) 13	(13) 0.5	(13) WH	(13) 4508	(13) III	(13) —
(14) 14	(14) 0.5	(14) WH / BU	(14) 4507	(14) II	(14) —	(14) Transmission Clutch H Control	(14) 14	(14) 0.5	(14) WH / BU	(14) 4507	(14) III	(14) —
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
(18) 18	(18) 0.5	(18) G N / GY	(18) 6387	(18) I	(18) —	(18) Transmission High Side Driver 1 Control	(18) 18	(18) 2.5	(18) G N / GY	(18) 6387	(18) III	(18) —
(19) 19	(19) 0.5	(19) G Y / BN	(19) 6388	(19) I	(19) —	(19) Transmission High Side Driver 2 Control	(19) 19	(19) 2.5	(19) G Y / BN	(19) 6388	(19) III	(19) —
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
(21) 21	(21) 0.5	(21) G N / YE	(21) 3337	(21) II	(21) —	(21) Transmission Internal Mode Switch Mode Control Y	(21) 21	(21) 0.5	(21) G N / YE	(21) 3337	(21) III	(21) —
(22) 22	(22) 0.5	(22) B U / WH	(22) 3338	(22) II	(22) —	(22) Transmission Internal Mode Switch Mode Control X	(22) 22	(22) 0.5	(22) B U / WH	(22) 3338	(22) III	(22) —
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
(24) 24	(24) 0.5	(24) G Y / BU	(24) 6358	(24) II	(24) —	(24) Output Speed Signal	(24) 24	(24) 0.5	(24) G Y / BU	(24) 6358	(24) III	(24) —
(25) 25	(25) 0.5	(25) Y E / GN	(25) 4170	(25) II	(25) —	(25) Transmission Output Shaft Speed Sensor Circuit 9V Reference	(25) 25	(25) 0.5	(25) Y E / GN	(25) 4170	(25) III	(25) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(26) 26	(26) 0.5	(26) GN / YE	(26) 63 53	(26) II	(26) —	(26) Input Speed Signal	(26) 26	(26) 0.5	(26) GN / YE	(26) 63 53	(26) III	(26) —
(27) 27	(27) 0.5	(27) YE / BU	(27) 41 71	(27) II	(27) —	(27) Transmission Input Shaft Speed Sensor Circuit 9V Reference	(27) 27	(27) 0.5	(27) YE / BU	(27) 41 71	(27) III	(27) —
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
(29) 29	(29) 0.5	(29) WH / RD	(29) 48 0	(29) II	(29) —	(29) Engine Control Vehicle Sensors 5 Volt Reference 1	(29) 29	(29) 0.5	(29) WH / RD	(29) 59 6	(29) III	(29) —
(30) 30	(30) 0.5	(30) BK / GY	(30) 62 6	(30) II	(30) —	(30) Engine Control Vehicle Sensors Low Reference 1	(30) 30	(30) 0.5	(30) BK / GY	(30) 39 27	(30) III	(30) —
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
(32) 32	(32) 0.5	(32) GN / VT	(32) 45 10	(32) II	(32) —	(32) Transmission Intermediate Speed Signal	(32) 32	(32) 0.5	(32) GN / VT	(32) 45 10	(32) III	(32) —
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
(34) 34	(34) 0.5	(34) GY / RD	(34) 10 817	(34) II	(34) —	(34) Lubricant Circuit Pressure Sensor 5 Volt Reference	(34) 34	(34) 0.5	(34) GN	(34) 10 817	(34) III	(34) —
(35) 35	(35) 0.5	(35) BU / BK	(35) 10 819	(35) II	(35) —	(35) Lubricant Circuit Pressure Sensor Low Reference	(35) 35	(35) 0.5	(35) BU / BK	(35) 10 819	(35) III	(35) —
(36) 36	(36) 0.5	(36) GN / YE	(36) 10 816	(36) II	(36) —	(36) Lubricant Circuit Pressure Sensor Signal	(36) 36	(36) 0.5	(36) BU / YE	(36) 10 816	(36) III	(36) —

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1)



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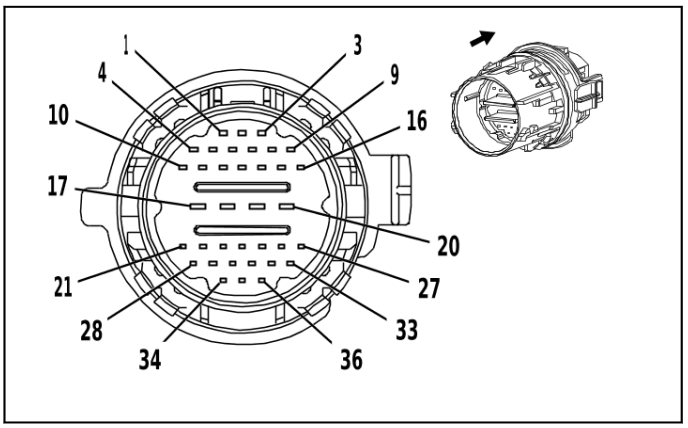


3977661

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 2138314-1
- Service Connector: 19329922
- Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed(BK)

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 36-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19300445	J-35616-12 (BU)	J-38125-11A
III	Not required	No Tool Required	No Tool Required

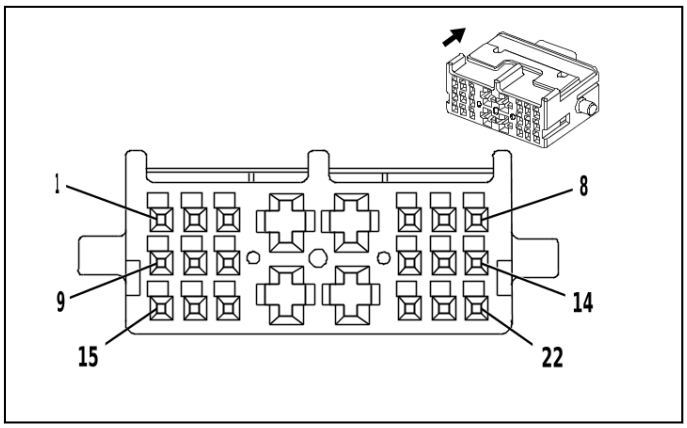
X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN/WH	(1) 6380	(1) II	(1) —	(1) Torque Converter Clutch Enable Solenoid Valve A Control	(1) 1	(1) 0.5	(1) GN/WH	(1) 6380	(1) III	(1) —
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
(3) 3	(3) 0.5	(3) VT/WH	(3) 422	(3) II	(3) —	(3) Torque Converter Clutch Solenoid Valve Control	(3) 3	(3) 0.5	(3) VT/WH	(3) 422	(3) III	(3) —
(4) 4	(4) 0.5	(4) GN/WH	(4) 1530	(4) II	(4) —	(4) Transmission Line Pressure Control Solenoid Valve Control	(4) 4	(4) 0.5	(4) GN/WH	(4) 1530	(4) III	(4) —
(5) 5	(5) 0.5	(5) BN	(5) 6400	(5) II	(5) —	(5) Clutch Solenoid Valve A Control	(5) 5	(5) 0.5	(5) BN	(5) 6400	(5) III	(5) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(6) 6	(6) 0.5	(6) BU	(6) 6401	(6) II	(6) —	(6) Clutch Solenoid Valve B Control	(6) 6	(6) 0.5	(6) BU	(6) 6401	(6) III	(6) —
(7) 7	(7) 0.5	(7) YE / BN	(7) 6210	(7) II	(7) —	(7) Torque Converter Clutch Enable Solenoid Valve B Control	(7) 7	(7) 0.5	(7) YE / BN	(7) 6210	(7) III	(7) —
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
(10) 10	(10) 0.5	(10) GY	(10) 6402	(10) II	(10) —	(10) Clutch Solenoid Valve C Control	(10) 10	(10) 0.5	(10) GY	(10) 6402	(10) III	(10) —
(11) 11	(11) 0.5	(11) BK / BN	(11) 586	(11) II	(11) —	(11) Transmission Fluid Temperature Sensor Low Reference	(11) 11	(11) 0.5	(11) BK / BN	(11) 586	(11) III	(11) —
(12) 12	(12) 0.5	(12) BN / WH	(12) 585	(12) II	(12) —	(12) Transmission Fluid Temperature Sensor Signal	(12) 12	(12) 0.5	(12) BN / WH	(12) 585	(12) III	(12) —
(13) 13	(13) 0.5	(13) WH	(13) 4508	(13) II	(13) —	(13) Transmission Clutch G Control	(13) 13	(13) 0.5	(13) WH	(13) 4508	(13) III	(13) —
(14) 14	(14) 0.5	(14) WH / BU	(14) 4507	(14) II	(14) —	(14) Transmission Clutch H Control	(14) 14	(14) 0.5	(14) WH / BU	(14) 4507	(14) III	(14) —
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
(18) 18	(18) 0.5	(18) GN / GY	(18) 6387	(18) I	(18) —	(18) Transmission High Side Driver 1 Control	(18) 18	(18) 0.5	(18) GN / GY	(18) 6387	(18) III	(18) —
(19) 19	(19) 0.75	(19) GY / BN	(19) 6388	(19) I	(19) —	(19) Transmission High Side Driver 2 Control	(19) 19	(19) 0.5	(19) GY / BN	(19) 6388	(19) III	(19) —
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
(21) 21	(21) 0.5	(21) GN / YE	(21) 3337	(21) II	(21) —	(21) Transmission Internal Mode Switch Mode Control Y	(21) 21	(21) 0.5	(21) GN / YE	(21) 3337	(21) III	(21) —
(22) 22	(22) 0.5	(22) BU / WH	(22) 3338	(22) II	(22) —	(22) Transmission Internal Mode Switch Mode Control X	(22) 22	(22) 0.5	(22) BU / WH	(22) 3338	(22) III	(22) —
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
(24) 24	(24) 0.5	(24) GY / BU	(24) 6358	(24) II	(24) —	(24) Output Speed Signal	(24) 24	(24) 0.5	(24) GY / BU	(24) 6358	(24) III	(24) —
(25) 25	(25) 0.5	(25) YE / GN	(25) 4170	(25) II	(25) —	(25) Transmission Output Shaft Speed Sensor Circuit 9V Reference	(25) 25	(25) 0.5	(25) YE / GN	(25) 4170	(25) III	(25) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(26) 26	(26) 0.5	(26) GN / YE	(26) 63 53	(26) II	(26) —	(26) Input Speed Signal	(26) 26	(26) 0.5	(26) GN / YE	(26) 63 53	(26) III	(26) —
(27) 27	(27) 0.5	(27) YE / BU	(27) 41 71	(27) II	(27) —	(27) Transmission Input Shaft Speed Sensor Circuit 9V Reference	(27) 27	(27) 0.5	(27) YE / BU	(27) 41 71	(27) III	(27) —
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
(29) 29	(29) 0.5	(29) WH / RD	(29) 48 0	(29) II	(29) —	(29) Engine Control Vehicle Sensors 5 Volt Reference 1	(29) 29	(29) 0.5	(29) WH / RD	(29) 59 6	(29) III	(29) —
(30) 30	(30) 0.5	(30) BK / GY	(30) 62 6	(30) II	(30) —	(30) Engine Control Vehicle Sensors Low Reference 1	(30) 30	(30) 0.5	(30) BK / GY	(30) 39 27	(30) III	(30) —
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
(32) 32	(32) 0.5	(32) GN / VT	(32) 45 10	(32) II	(32) —	(32) Transmission Intermediate Speed Signal	(32) 32	(32) 0.5	(32) GN / VT	(32) 45 10	(32) III	(32) —
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
(34) 34	(34) 0.5	(34) GY / RD	(34) 10 817	(34) II	(34) —	(34) Lubricant Circuit Pressure Sensor 5 Volt Reference	(34) 34	(34) 0.5	(34) GY / RD	(34) 10 817	(34) III	(34) —
(35) 35	(35) 0.5	(35) BU / BK	(35) 10 819	(35) II	(35) —	(35) Lubricant Circuit Pressure Sensor Low Reference	(35) 35	(35) 0.5	(35) BU / BK	(35) 10 819	(35) III	(35) —
(36) 36	(36) 0.5	(36) GN / YE	(36) 10 816	(36) II	(36) —	(36) Lubricant Circuit Pressure Sensor Signal	(36) 36	(36) 0.5	(36) GN / YE	(36) 10 816	(36) III	(36) —

X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (MTH / N8X)



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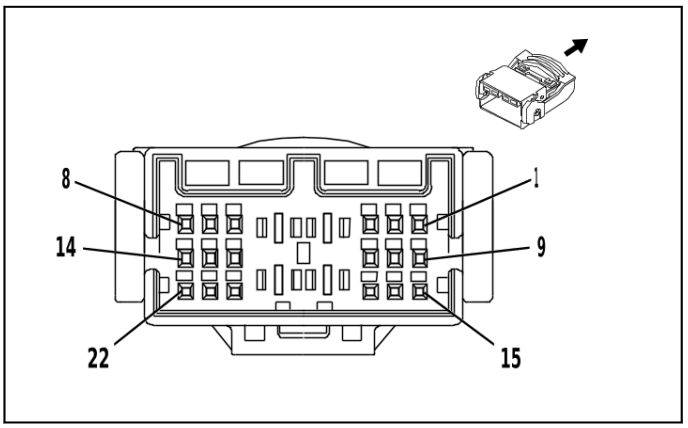


3977770

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 1897543-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way F 0.64 Micro-Quadlock, 2.8 Micro-Power Series(NA)

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 1897540-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way M 0.64 Micro-Quadlock, 2.8 Micro-Power Series(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required
III	Not required	J-35616-5 (PU)	No Tool Required
IV	Not required	J-35616-65B (L-BU)	No Tool Required

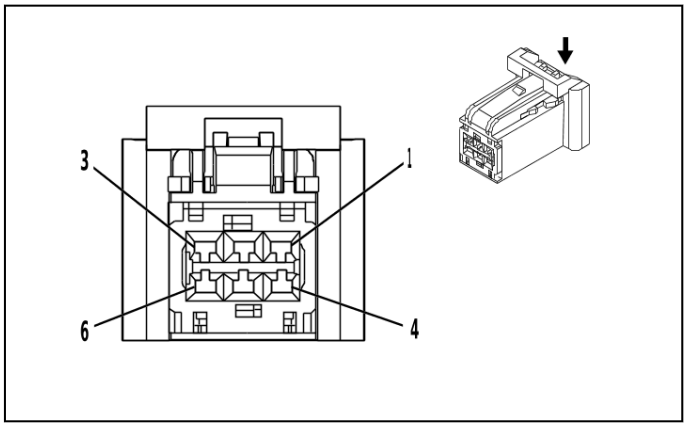
X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (MTH / N8X)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GN / WH	(1) 6380	(1) II	(1) —	(1) Torque Converter Clutch Enable Solenoid Valve A Control	(1) 1	(1) 0.5	(1) GN / WH	(1) 6380	(1) IV	(1) —
(2) 2	(2) 0.5	(2) BU / WH	(2) 3338	(2) II	(2) —	(2) Transmission Internal Mode Switch Mode Control X	(2) 2	(2) 0.5	(2) BU / WH	(2) 3338	(2) IV	(2) —
(3) 3	(3) 0.5	(3) GY / RD	(3) 10817	(3) II	(3) —	(3) Lubricant Circuit Pressure Sensor 5 Volt Reference	(3) 3	(3) 0.5	(3) GY / RD	(3) 10817	(3) IV	(3) —
(4) 4	(4) 2.5	(4) GN / GY	(4) 6387	(4) I	(4) —	(4) Transmission High Side Driver 1 Control	(4) 4	(4) 2.5	(4) GN / GY	(4) 6387	(4) III	(4) —
(5) 5	(5) 1.5	(5) RD / GN	(5) 40	(5) I	(5) —	(5) Battery Positive Voltage	(5) 5	(5) —	(5) —	(5) —	(5) —	(5) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(6) 6	(6) 0.5	(6) WH / RD	(6) 596	(6) II	(6) —	(6) 5V Reference	(6) 6	(6) 0.5	(6) WH / RD	(6) 596	(6) IV	(6) —
(7) 7	(7) 0.5	(7) WH / BU	(7) 4507	(7) II	(7) —	(7) Transmission Clutch H Control	(7) 7	(7) 0.5	(7) WH / BU	(7) 4507	(7) IV	(7) —
(8) 8	(8) 0.5	(8) GN / WH	(8) 1530	(8) II	(8) —	(8) Transmission Line Pressure Control Solenoid Valve Control	(8) 8	(8) 0.5	(8) GN / WH	(8) 1530	(8) IV	(8) —
(9) 9	(9) 0.5	(9) WH	(9) 4508	(9) II	(9) —	(9) Transmission Clutch G Control	(9) 9	(9) 0.5	(9) WH	(9) 4508	(9) IV	(9) —
(10) 10	(10) 0.5	(10) YE / BN	(10) 6210	(10) II	(10) —	(10) Torque Converter Clutch Enable Solenoid Valve B Control	(10) 10	(10) 0.5	(10) YE / BN	(10) 6210	(10) IV	(10) —
(11) 11	(11) 0.5	(11) GN / YE	(11) 3337	(11) II	(11) —	(11) Transmission Internal Mode Switch Mode Control Y	(11) 11	(11) 0.5	(11) GN / YE	(11) 3337	(11) IV	(11) —
(12) 12	(12) 0.5	(12) BU / BK	(12) 10819	(12) II	(12) —	(12) Lubricant Circuit Pressure Sensor Low Reference	(12) 12	(12) 0.5	(12) BU / BK	(12) 10819	(12) IV	(12) —
(13) 13	(13) 0.5	(13) GY	(13) 6402	(13) II	(13) —	(13) Clutch Solenoid Valve C Control	(13) 13	(13) 0.5	(13) GY	(13) 6402	(13) IV	(13) —
(14) 14	(14) 0.5	(14) VT / WH	(14) 422	(14) II	(14) —	(14) Torque Converter Clutch Solenoid Valve Control	(14) 14	(14) 0.5	(14) VT / WH	(14) 422	(14) IV	(14) —
(15) 15	(15) 0.5	(15) BN / WH	(15) 585	(15) II	(15) —	(15) Transmission Fluid Temperature Sensor Signal	(15) 15	(15) 0.5	(15) BN / WH	(15) 585	(15) IV	(15) —
(16) 16	(16) 0.5	(16) BK / BN	(16) 586	(16) II	(16) —	(16) Transmission Fluid Temperature Sensor Low Reference	(16) 16	(16) 0.5	(16) BK / BN	(16) 586	(16) IV	(16) —
(17) 17	(17) 0.5	(17) GN / YE	(17) 10816	(17) II	(17) —	(17) Lubricant Circuit Pressure Sensor Signal	(17) 17	(17) 0.5	(17) GN / YE	(17) 10816	(17) IV	(17) —
(18) 18	(18) 2.5	(18) GY / BN	(18) 6388	(18) I	(18) —	(18) Transmission High Side Driver 2 Control	(18) 18	(18) 2.5	(18) GY / BN	(18) 6388	(18) III	(18) —
(19) 19	(19) 1.5	(19) BK	(19) 6250	(19) I	(19) —	(19) Transmission Ground	(19) 19	(19) —	(19) —	(19) —	(19) —	(19) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(20) 20	(20) 0.5	(20) B K / GY	(20) 39 27	(20) II	(20) —	(20) Transmission Internal Mode Switch Feedback Signal	(20) 20	(20) 0.5	(20) B K / GY	(20) 39 27	(20) IV	(20) —
(21) 21	(21) 0.5	(21) B N	(21) 64 00	(21) II	(21) —	(21) Clutch Solenoid Valve A Control	(21) 21	(21) 0.5	(21) B N	(21) 64 00	(21) IV	(21) —
(22) 22	(22) 0.5	(22) B U	(22) 64 01	(22) II	(22) —	(22) Clutch Solenoid Valve B Control	(22) 22	(22) 0.5	(22) B U	(22) 64 01	(22) IV	(22) —

X178 Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness (MTH / N8X)



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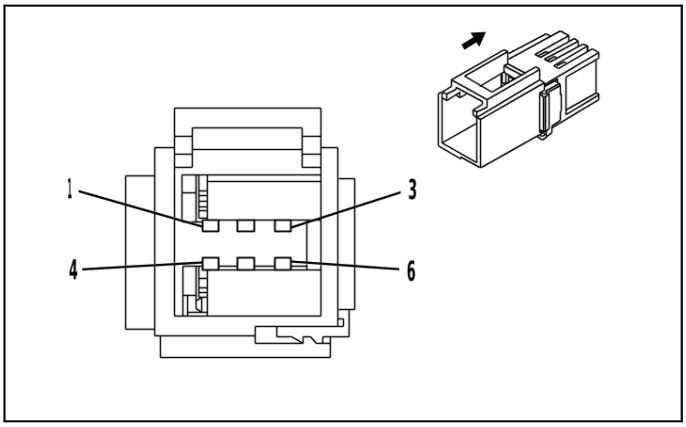


3977959

Connector Part Information
- Harness Type: Automatic Transmission Wiring Harness
- OEM Connector: 33134940
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 1.2 OCS Series(NA)

Connector Part Information
- Harness Type: Automatic Transmission Output Speed Sensor Wiring Harness
- OEM Connector: 13955963
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M 0.64 II Series(GY)

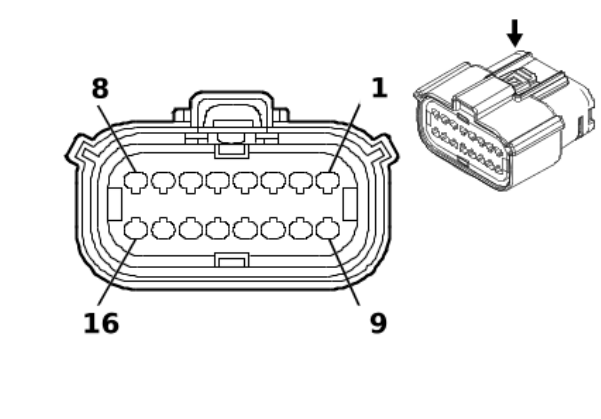
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-65B (L-BU)	No Tool Required

X178 Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness (MTH / N8X)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) GY / BU	(1) 6358	(1) I	(1) —	(1) Output Speed Signal	(1) 1	(1) 0.5	(1) YE	(1) 6358	(1) II	(1) —
(2) 2	(2) 0.5	(2) YE / GN	(2) 4170	(2) I	(2) —	(2) Transmission Output Shaft Speed Sensor Circuit 9V Reference	(2) 2	(2) 0.5	(2) RD	(2) 4170	(2) II	(2) —
(3) 3	(3) 0.5	(3) YE / GN	(3) 4170	(3) I	(3) —	(3) Transmission Output Shaft Speed Sensor Circuit 9V Reference	(3) 3	(3) 0.5	(3) YE / GN	(3) 4170	(3) II	(3) —
(4) 4	(4) 0.5	(4) WH / RD	(4) 596	(4) I	(4) —	(4) 5V Reference	(4) 4	(4) 0.5	(4) WH / RD	(4) 596	(4) II	(4) —
(5) 5	(5) 0.5	(5) GN / YE	(5) 6353	(5) I	(5) —	(5) Input Speed Signal	(5) 5	(5) 0.5	(5) GN / YE	(5) 6353	(5) II	(5) —
(6) 6	(6) 0.5	(6) GN / VT	(6) 4510	(6) I	(6) —	(6) Transmission Intermediate Speed Signal	(6) 6	(6) 0.5	(6) GN / VT	(6) 4510	(6) II	(6) —

X185 Instrument Panel Wiring Harness to Chassis Wiring Harness



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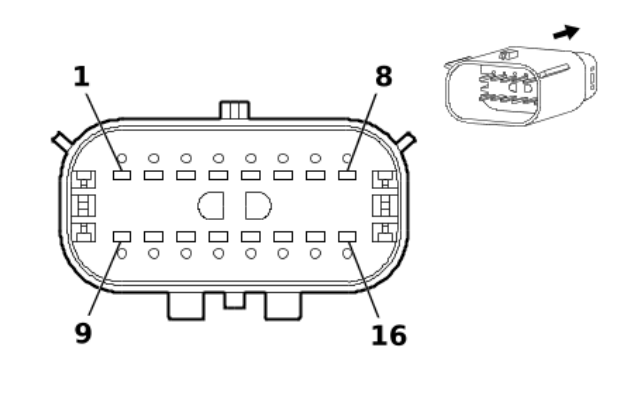


2548390

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 33472-1606
- Service Connector: 13584788
- Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 33482-8601
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M 1.5 MX Series, Sealed(BK)

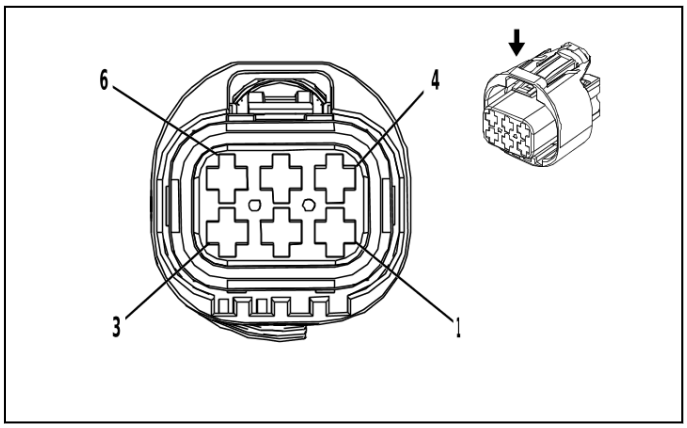
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

X185 Instrument Panel Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) RD / GN	(1) 3140	(1) I	(1) —	(1) Battery Positive Voltage	(1) 1	(1) 0.5	(1) RD / GN	(1) 3140	(1) II	(1) —
(2) 2	(2) 0.5	(2) GN	(2) 5060	(2) I	(2) —	(2) Low Speed GMLAN Serial Data	(2) 2	(2) 0.5	(2) GN	(2) 5060	(2) II	(2) —
3 - 7	—	—	—	—	—	Not Occupied	3 - 7	—	—	—	—	—
(8) 8	(8) 0.5	(8) BU / YE	(8) 6105	(8) I	(8) —	(8) High Speed GMLAN Serial Data [+] 2	(8) 8	(8) 0.5	(8) BU / YE	(8) 6105	(8) II	(8) —
(9) 9	(9) 0.5	(9) GY / YE	(9) 5853	(9) I	(9) —	(9) Driver Side Side Object Detection LED Signal 1	(9) 9	(9) 0.5	(9) GY / YE	(9) 5853	(9) II	(9) —
(10) 10	(10) 0.5	(10) GY	(10) 5861	(10) I	(10) —	(10) Passenger Side Object Detection LED Signal 1	(10) 10	(10) 0.5	(10) GY	(10) 5861	(10) II	(10) —
11 - 14	—	—	—	—	—	Not Occupied	11 - 14	—	—	—	—	—
(15) 15	(15) 0.5	(15) GN / BN	(15) 2087	(15) I	(15) —	(15) Multi-axis Acceleration Sensor Supply Voltage	(15) 15	(15) 0.5	(15) GN / BN	(15) 2087	(15) II	(15) —
(16) 16	(16) 0.5	(16) WH	(16) 6106	(16) I	(16) —	(16) High Speed GMLAN Serial Data [-] 2	(16) 16	(16) 0.5	(16) WH	(16) 6106	(16) II	(16) —

X190 Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)



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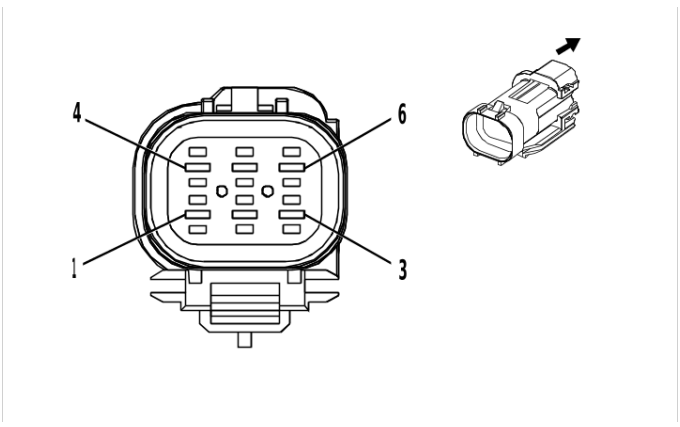


2042939

Connector Part Information
- Harness Type: Accessory Wiring Harness
- OEM Connector: 1452327-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 2.8 Junior Power Timer Series, Sealed(BK)

Connector Part Information
- Harness Type: Accessory Power Fuse Block Rear Wiring Harness Extension Harness
- OEM Connector: 1452324-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M 2.8 Series, Sealed(BK)

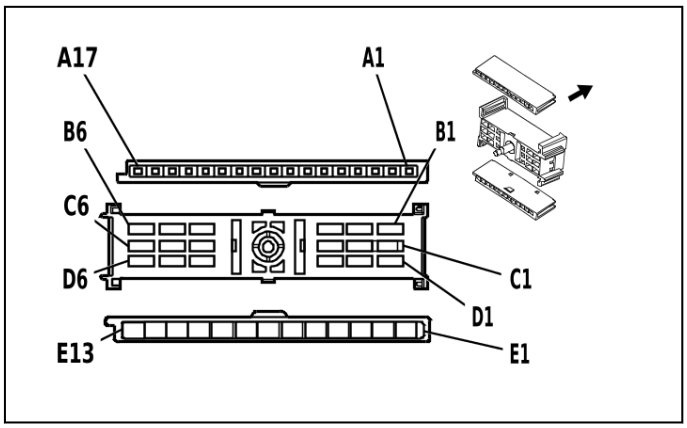
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X190 Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU	(1) 6842	(1) I	(1) —	(1) Auxiliary Device Relay 1 Control	(1) 1	(1) 0.5	(1) BK / BU	(1) 6842	(1) II	(1) —
(2) 2	(2) 2.5	(2) GN	(2) 6839	(2) I	(2) —	(2) Auxiliary Device 1 Switched Voltage	(2) 2	(2) 2.5	(2) GN	(2) 6839	(2) II	(2) —
(3) 3	(3) 0.5	(3) BU	(3) 6843	(3) I	(3) —	(3) Auxiliary Device Relay 2 Control	(3) 3	(3) 0.5	(3) BU	(3) 6843	(3) II	(3) —
(4) 4	(4) 2.5	(4) GN	(4) 6840	(4) I	(4) —	(4) Auxiliary Device 2 Switched Voltage	(4) 4	(4) 2.5	(4) GN	(4) 6840	(4) II	(4) —
(5) 5	(5) 1	(5) RD / WH	(5) 5440	(5) I	(5) —	(5) Battery Positive Voltage	(5) 5	(5) 1	(5) RD / WH	(5) 5440	(5) II	(5) —
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness



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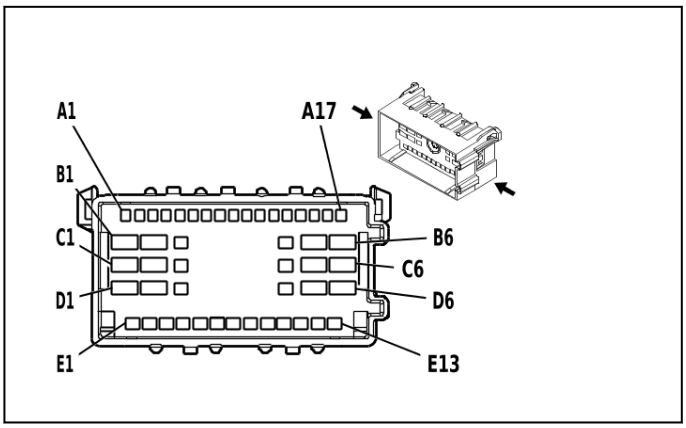


510556

Connector Part Information
- Harness Type: Steering Wheel Air Bag Coil Jumper Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 48-Way F

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15492579
- Service Connector: 86532982
- Description: 48-Way M 150, 280, 630 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	13505668	J-35616-3 (GY)	J-38125-12A
III	13575715	J-35616-5 (PU)	J-38125-11A
IV	19330180	J-35616-43 (RD)	J-38125-11A

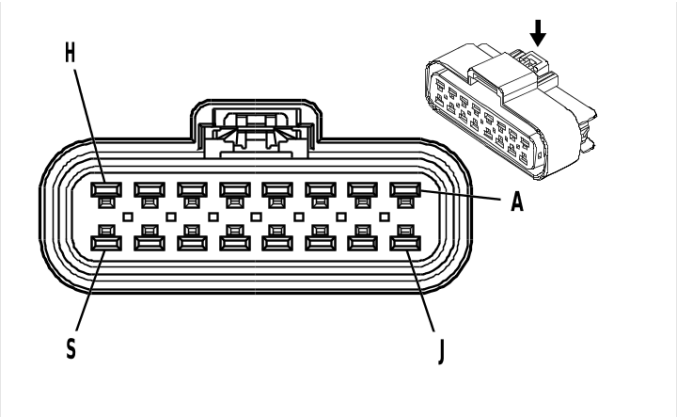
X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
E6	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E6	0.5	BU / YE	6105	III	—
E4	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E4	0.5	BU / YE	6105	III	—
A1	0.35	TN	28	I	—	Horn Relay Control	A1	0.35	TN	28	II	—
A2	—	—	—	—	—	Not Occupied	A2	—	—	—	—	—
A3	0.35	PK	1444	I	—	12V Reference	A3	0.35	PK	1444	II	—
A4	0.35	PU	5526	I	—	Tap Up/Tap Down Switch Signal	A4	0.35	PU	5526	II	—
A5	—	—	—	—	—	Not Occupied	A5	—	—	—	—	—
A6	0.5	GN / BN	2087	I	—	Multi-axis Acceleration Sensor Supply Voltage	A6	0.5	GN / BN	2087	II	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A7 - A8	—	—	—	—	—	Not Occupied	A7 - A8	—	—	—	—	—
A9	0.35	PK	3	I	—	Run/Crank Ignition 1 Voltage	A9	0.35	PK	3	II	—
A10	—	—	—	—	—	Not Occupied	A10	—	—	—	—	—
A11	0.35	GN	6818	I	—	Steering Wheel Controls Signal 1	A11	0.35	GN	6818	II	—
A12	—	—	—	—	—	Not Occupied	A12	—	—	—	—	—
A13	0.35	GN / WH	7158	I	—	Cruise Control Indicator Dimming Signal	A13	0.35	GN / WH	7158	II	—
A14	—	—	—	—	—	Not Occupied	A14	—	—	—	—	—
A15	0.35	BN	6136	I	—	Control	A15	0.35	BN	6136	II	—
A16	—	—	—	—	—	Not Occupied	A16	—	—	—	—	—
A17	0.35	GY	1884	I	—	Cruise Control Set/ Coast/ Resume/ Accelerate Switch Signal	A17	0.35	GY	1884	II	—
B1	0.35	RD / WH	540	I	—	Battery Positive Voltage	B1	0.35	RD / WH	540	IV	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.35	WH	111	I	—	Hazard Warning Switch Signal	B3	0.35	WH	111	III	—
B4 - B5	—	—	—	—	—	Not Occupied	B4 - B5	—	—	—	—	—
B6	0.35	PK	1020	I	—	Off/Run/ Crank Ignition Voltage	B6	0.35	PK	1020	IV	—
C1	0.35	WH	530	I	—	Off/Run/ Crank Ignition Voltage	C1	0.35	WH	530	IV	—
C2	—	—	—	—	—	Not Occupied	C2	—	—	—	—	—
C3	0.35	YE	307	I	—	Headlamp Switch Flash Signal	C3	0.35	YE	307	III	—
C4 - C5	—	—	—	—	—	Not Occupied	C4 - C5	—	—	—	—	—
C6	0.35	BN	4	I	—	Accessory Ignition Voltage	C6	0.35	BN	4	IV	—
D1	0.35	TN / BK	6009	I	—	Windshield Wiper Switch Low Reference	D1	0.35	TN / BK	6009	IV	—
D2	—	—	—	—	—	Not Occupied	D2	—	—	—	—	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D3	0.35	YE	525	I	—	High Beam Select Switch Low Beam Signal	D3	0.35	YE	525	III	—
D4	0.5	TN / WH	816	I	—	Brake Transmission Shift Interlock Solenoid Actuator Control	D4	0.5	TN / WH	816	III	—
D5	—	—	—	—	—	Not Occupied	D5	—	—	—	—	—
D6	0.35	PK	94	I	—	Windshield Washer Switch Signal	D6	0.35	PK	94	IV	—
E1	0.5	BK	350	I	—	Ground	E1	0.5	BK	350	III	—
E2	—	—	—	—	—	Not Occupied	E2	—	—	—	—	—
E3	0.5	BK / WH	351	I	—	Signal Ground	E3	0.5	BK / WH	351	III	—
E4	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E4	0.5	BU / YE	6105	III	—
E5	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E5	0.5	WH	6106	III	—
E6	0.5	BU / YE	6105	I	—	High Speed GMLAN Serial Data [+] 2	E6	0.5	BU / YE	6105	III	—
E7	0.5	WH	6106	I	—	High Speed GMLAN Serial Data [-] 2	E7	0.5	WH	6106	III	—
E8	0.35	GN	663	I	—	Hazard Switch Left Turn Signal	E8	0.35	GN	663	III	—
E9	0.35	TN	664	I	—	Hazard Switch Right Turn Signal	E9	0.35	TN	664	III	—
E10	—	—	—	—	—	Not Occupied	E10	—	—	—	—	—
E11	0.35	BU	1714	I	—	Windshield Wiper Switch Low Signal	E11	0.35	BU	1714	III	—
E12	0.35	GN	1715	I	—	Windshield Wiper Switch High Signal	E12	0.35	GN	1715	III	—
E13	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	E13	0.35	GN	5060	III	—

X202 Instrument Panel Wiring Harness to Engine Wiring Harness



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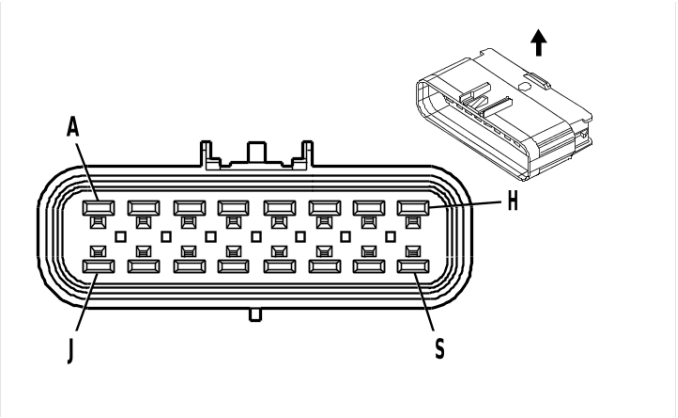

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Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15326666
- Service Connector: 15326666
- Description: 16-Way F 280 GT Series, Sealed(BK)

Connector Part Information
- Harness Type: Engine Wiring Harness
- OEM Connector: 15326667
- Service Connector: 88986347
- Description: 16-Way M 280 GT Series, Sealed(BK)

Terminal Part Information

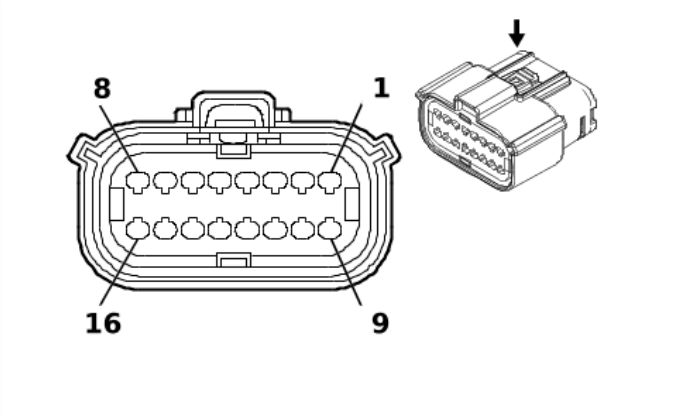
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575404	J-35616-4A (PU)	J-38125-215A
II	13580824	J-35616-4A (PU)	J-38125-553
III	13575507	J-35616-5 (PU)	J-38125-215A

X202 Instrument Panel Wiring Harness to Engine Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE / VT	2378	II	—	Right Rear Outer Parking Assist Sensor Signal	A	0.5	YE / VT	2378	III	—
B	0.5	YE / WH	2377	II	—	Right Rear Middle Parking Assist Sensor Signal	B	0.5	YE / WH	2377	III	—
C	0.5 0.8	RD / WH BK	840 2840	II I	— —	Battery Positive Voltage Battery Positive Voltage	C	0.5	RD / BU	840	III	—
D - E	—	—	—	—	—	Not Occupied	D - E	—	—	—	—	—
F	0.5	BN	5360	II	—	Brake Apply Sensor Low Reference	F	0.5	BK / GY	626	III	—
G	0.5	BN / WH	2374	II	—	Object Sensor Voltage Reference	G	0.5	BN / WH	2374	III	—
H	0.5	YE	2375	II	—	Left Rear Outer Parking Assist Sensor Signal	H	0.5	YE	2375	III	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
J	0.5	BK / GY	2379	II	—	Object Sensor Low Reference	J	0.5	BK / GY	2379	III	—
K - L	—	—	—	—	—	Not Occupied	K - L	—	—	—	—	—
M	0.5	RD / WH	4892	II	—	Auxiliary Battery Relay Control	M	0.5	RD / WH	4892	III	—
N	—	—	—	—	—	Not Occupied	N	—	—	—	—	—
P	0.5	YE	5361	II	—	Brake Apply Sensor Signal	P	0.5	WH / GN	5380	III	—
R	0.5	WH	5359	II	—	Brake Apply Sensor Control	R	0.5	BU / RD	460	III	—
S	0.5	YE / BU	2376	II	—	Left Rear Middle Parking Assist Sensor Signal	S	0.5	YE / BU	2376	III	—

X204 Body Wiring Harness to Roof Console Wiring Harness



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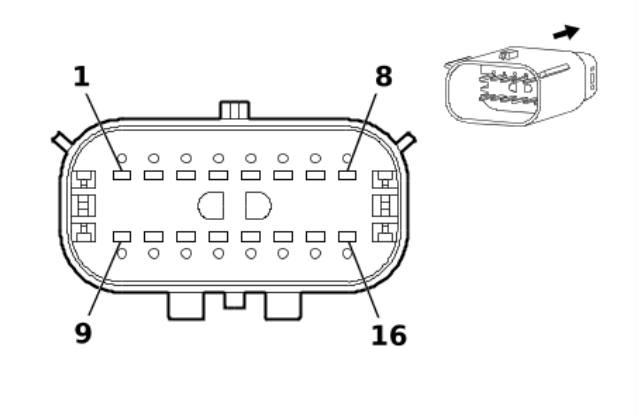


2548390

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 33472-1606
- Service Connector: 13584788
- Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 33482-8601
- Service Connector: 19369662
- Description: 16-Way M 1.5 MX Series, Sealed(BK)

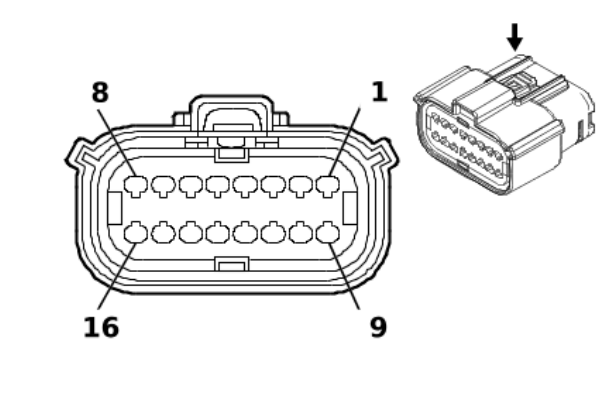
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	86800300	J-35616-3 (GY)	J-38125-217

X204 Body Wiring Harness to Roof Console Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) BU	(1) 7641	(1) I	(1) —	(1) Frontview Camera 2 Signal [+]	(1) 1	(1) 0.5	(1) BU	(1) 7641	(1) II	(1) —
(2) 2	(2) 0.35	(2) WH / YE	(2) 7642	(2) I	(2) —	(2) Frontview Camera 2 Signal [-]	(2) 2	(2) 0.5	(2) WH / YE	(2) 7642	(2) II	(2) —
(3) 3	(3) 0.5	(3) BN	(3) 6799	(3) I	(3) —	(3) Camera Shield Ground	(3) 3	(3) 0.5	(3) BN	(3) 6799	(3) II	(3) —
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
(5) 5	(5) 0.5	(5) VT / WH	(5) 239	(5) I	(5) —	(5) Run/ Crank Ignition 1 Voltage	(5) 5	(5) 0.5	(5) VT / WH	(5) 239	(5) II	(5) —
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
(7) 7	(7) 0.8	(7) GN	(7) 654	(7) I	(7) —	(7) Cellular Telephone Microphone Low Reference	(7) 7	(7) 0.8	(7) GN	(7) 654	(7) II	(7) —
(8) 8	(8) 0.8	(8) GY	(8) 655	(8) I	(8) —	(8) Cellular Telephone Microphone Signal	(8) 8	(8) 0.8	(8) GY	(8) 655	(8) II	(8) —
(9) 9	(9) 0.5	(9) GN	(9) 24	(9) I	(9) —	(9) Backup Lamp Control	(9) 9	(9) 0.5	(9) GN / WH	(9) 24	(9) II	(9) —
(10) 10	(10) 0.5	(10) BK	(10) 1850	(10) I	(10) —	(10) Ground	(10) 10	(10) 0.5	(10) BK	(10) 1850	(10) II	(10) —
(11) 11	(11) 0.5	(11) GY / WH	(11) 3153	(11) I	(11) —	(11) Lane Departure Warning Disable Switch Signal	(11) 11	(11) 0.5	(11) GY / WH	(11) 3153	(11) II	(11) —
(12) 12	(12) 0.5	(12) GN	(12) 5060	(12) I	(12) —	(12) Low Speed GMLAN Serial Data	(12) 12	(12) 0.5	(12) GN	(12) 5060	(12) II	(12) —
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
(14) 14	(14) 0.5	(14) WH	(14) 3152	(14) I	(14) —	(14) Lane Departure Warning Indicator Control	(14) 14	(14) 0.5	(14) WH	(14) 3152	(14) II	(14) —
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
(16) 16	(16) 0.5	(16) RD / GN	(16) 3140	(16) I	(16) —	(16) Battery Positive Voltage	(16) 16	(16) 0.5	(16) RD / GN	(16) 3140	(16) II	(16) —

X205 Roof Console Wiring Harness to Body Wiring Harness



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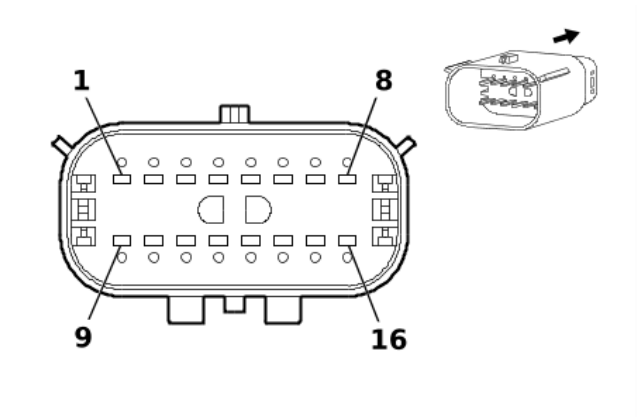


2548390

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 33472-1606
- Service Connector: 13584788
- Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 33482-8601
- Service Connector: 19369662
- Description: 16-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

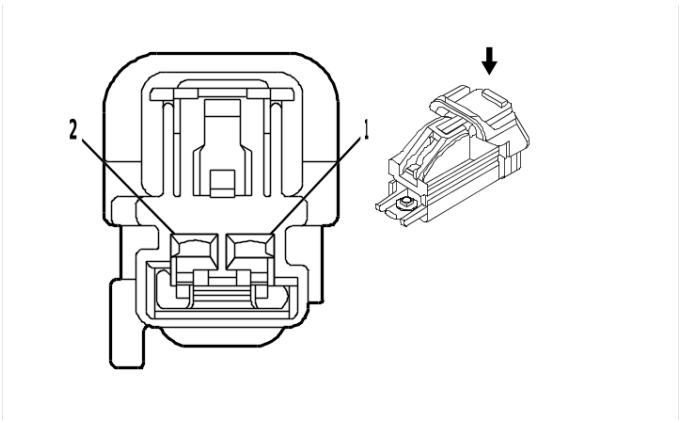
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	86800300	J-35616-3 (GY)	J-38125-217

X205 Roof Console Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.35	(1) BN	(1) 441	(1) I	(1) —	(1) Run Ignition 3 Voltage	(1) 1	(1) 0.35	(1) BN	(1) 441	(1) II	(1) —
(2) 2	(2) 0.5	(2) OG	(2) 1925	(2) I	(2) —	(2) Auxiliary Blower Motor Medium Speed Control 2	(2) 2	(2) 0.35	(2) OG	(2) 1925	(2) II	(2) —
(3) 3	(3) 0.5	(3) PK / BK	(3) 5265	(3) I	(3) —	(3) Auxiliary HVAC Rear Control Signal	(3) 3	(3) 0.5	(3) PK / BK	(3) 5265	(3) II	(3) —
(4) 4	(4) 0.35	(4) GY	(4) 2599	(4) I	(4) —	(4) Rear Mode Door Actuator Signal	(4) 4	(4) 0.35	(4) GY	(4) 2599	(4) II	(4) —
(5) 5	(5) 0.5	(5) WH	(5) 1924	(5) I	(5) —	(5) Auxiliary Blower Motor High Speed Control	(5) 5	(5) 0.35	(5) WH	(5) 1924	(5) II	(5) —
(6) 6	(6) 0.35	(6) BN	(6) 341	(6) I	(6) —	(6) Run Ignition 3 Voltage	(6) 6	(6) 0.35	(6) BN	(6) 341	(6) II	(6) —
(7) 7	(7) 1	(7) BK	(7) 1850	(7) I	(7) —	(7) Ground	(7) 7	(7) 1	(7) BK	(7) 1850	(7) II	(7) —
(8) 8	(8) 0.5	(8) BU / WH	(8) 149	(8) I	(8) —	(8) Courtesy Lamp Control	(8) 8	(8) 0.5	(8) BU / WH	(8) 149	(8) II	(8) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(9) 9	(9) 0.5	(9) BK / WH	(9) 351	(9) I	(9) —	(9) Signal Ground (9) Signal Ground	(9) 9	(9) 0.35 (9) 0.5	(9) BK / WH (9) BK / WH	(9) 351 (9) 351	(9) II (9) II	(9) U80 (9) - U80
(10) 10	(10) 0.5	(10) BN	(10) 52 63	(10) I	(10) —	(10) Auxiliary HVAC Rear Temperature Signal	(10) 10	(10) 0.5	(10) BN	(10) 52 63	(10) II	(10) —
(11) 11	(11) 0.35	(11) GN	(11) 61 34	(11) I	(11) —	(11) Body Control Module LIN Bus 3	(11) 11	(11) 0.35	(11) GN	(11) 61 34	(11) II	(11) —
(12) 12	(12) 0.35	(12) OG	(12) 27 75	(12) I	(12) —	(12) Rear Air Temperature Door Actuator Control	(12) 12	(12) 0.35	(12) OG	(12) 27 75	(12) II	(12) —
(13) 13	(13) 0.5	(13) PU / WH	(13) 52 64	(13) I	(13) —	(13) Auxiliary HVAC Rear Mode Signal	(13) 13	(13) 0.5	(13) PU / WH	(13) 52 64	(13) II	(13) —
(14) 14	(14) 0.5	(14) BU	(14) 19 26	(14) I	(14) —	(14) Auxiliary Blower Motor Low Speed Control 2	(14) 14	(14) 0.35	(14) BU	(14) 19 26	(14) II	(14) —
(15) 15	(15) 0.35	(15) BN / WH	(15) 23 0	(15) I	(15) —	(15) Instrument Panel Lamp Dimming Control	(15) 15	(15) 0.35	(15) BN / WH	(15) 23 0	(15) II	(15) —
(16) 16	(16) 0.8	(16) OG	(16) 17 32	(16) I	(16) —	(16) Control Module 12V Reference 3	(16) 16	(16) 0.8	(16) OG	(16) 17 32	(16) II	(16) —

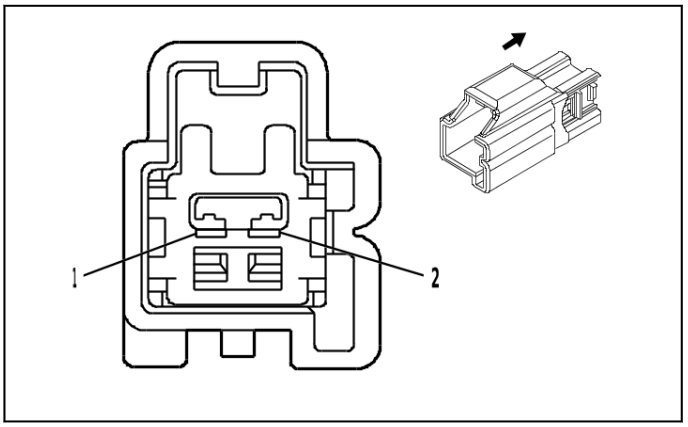
X206 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness



1856792

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 7283-6443-40
- Service Connector: 19367525
- Description: 2-Way F 1.5 YESC Series(L-GY)



1853532

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 7282-6443-40
- Service Connector: 19367526
- Description: 2-Way M 1.5 Series(L-GY)

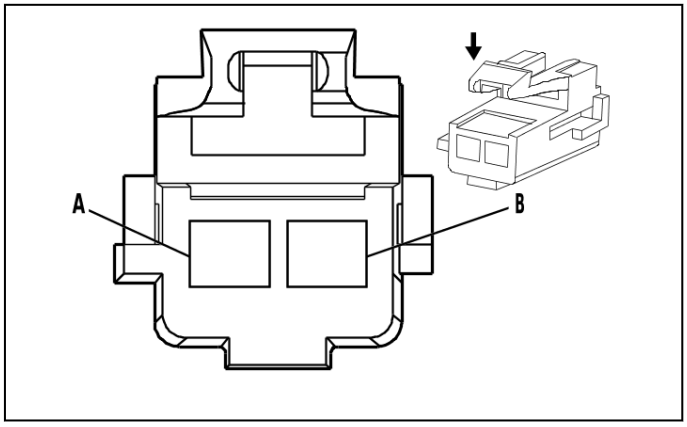
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

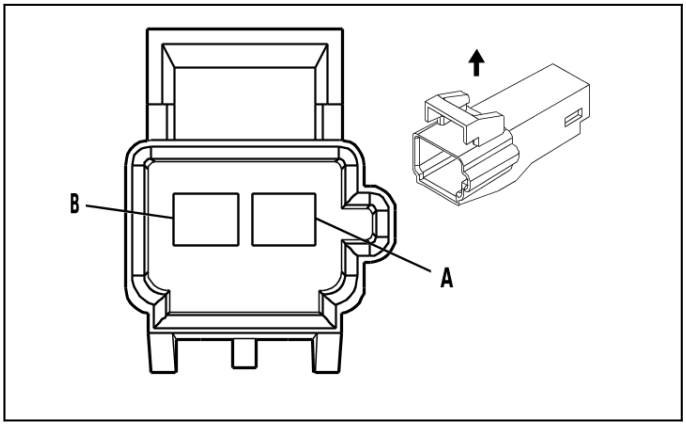
X206 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU	(1) 20	(1) I	(1) —	(1) Stop Lamp Control	(1) 1	(1) 0.5	(1) BU	(1) 20	(1) II	(1) —
(2) 2	(2) 0.5	(2) BK	(2) 350	(2) I	(2) —	(2) Ground	(2) 2	(2) 0.5	(2) BK	(2) 350	(2) II	(2) —

X220 Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness



1542255



788072

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 12129082
- Service Connector: 15305896
- Description: 2-Way F 280 Metri-Pack Flexlock Series(GY)

Connector Part Information
- Harness Type: Park Brake Switch Jumper Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M (GY)

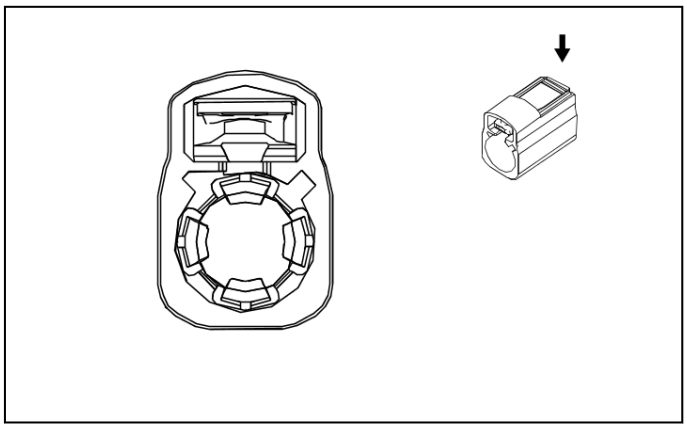
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required

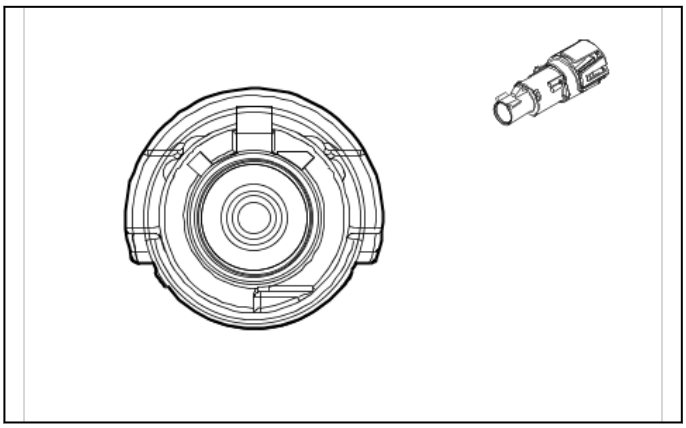
X220 Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	BU	1134	I	—	Park Brake Switch Signal	A	0.35	BU	1134	II	—
B	—	—	—	—	—	Not Occupied	B	—	—	—	—	—

X221 Instrument Panel Wiring Harness to Antenna Wiring Harness



2908476



5518522

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness COAX
- OEM Connector: 13616870
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way F Coax Type(BK)

Connector Part Information
- Harness Type: Antenna Wiring Harness COAX
- OEM Connector: Not Available
- Service Connector: Service by Cable Assembly — See Part Catalog
- Description: 1-Way M (BK)

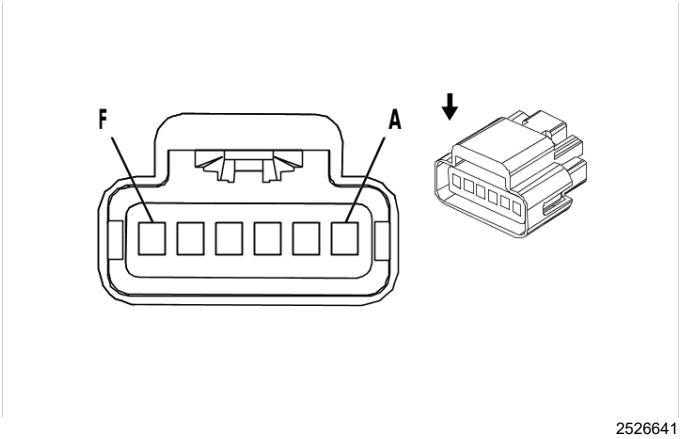
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

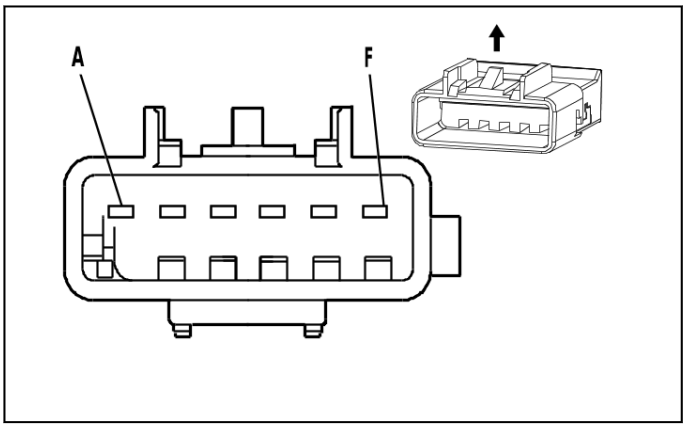
X221 Instrument Panel Wiring Harness to Antenna Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	(AM/FM) Antenna RF Signal	—	—	Coax Cable	—	I	—

X225 Accelerator Control Wiring Harness to Instrument Panel Wiring Harness



2526641



1464340

Connector Part Information
- Harness Type: Accelerator Control Wiring Harness
- OEM Connector: 13667186
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 150 GT FBT Series(BK)

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15332142
- Service Connector: 19368863
- Description: 6-Way M 150 GT Series(BK)

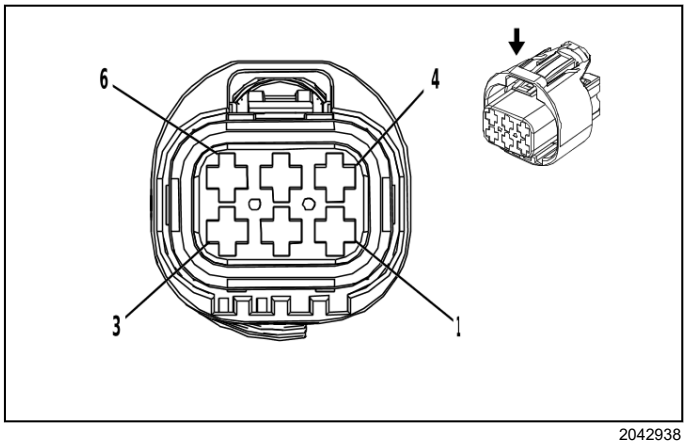
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X225 Accelerator Control Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	BN / RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	A	0.35	BN / RD	1274	II	—
B	0.35	WH / RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	B	0.35	WH / RD	1164	II	—
C	0.35	YE / WH	1161	I	—	Accelerator Pedal Position Signal 1	C	0.35	YE / WH	1161	II	—
D	0.35	BK / BU	1271	I	—	Accelerator Pedal Position Low Reference 1	D	0.35	BK / BU	1271	II	—
E	0.35	BK / VT	1272	I	—	Accelerator Pedal Position Low Reference 2	E	0.35	BK / VT	1272	II	—
F	0.35	GN / WH	1162	I	—	Accelerator Pedal Position Signal 2	F	0.35	GN / WH	1162	II	—

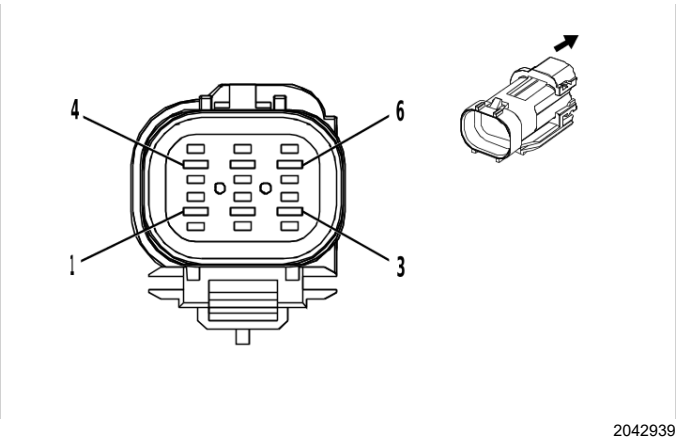
X291 Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)



2042938

Connector Part Information

- Harness Type: Accessory Power Fuse Block Rear Wiring Harness Extension Harness
- OEM Connector: 1452327-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 2.8 Junior Power Timer Series, Sealed(BK)



2042939

Connector Part Information

- Harness Type: Accessory Power Fuse Block Rear Wiring Harness Extension Harness
- OEM Connector: 1452324-1
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way M 2.8 Series, Sealed(BK)

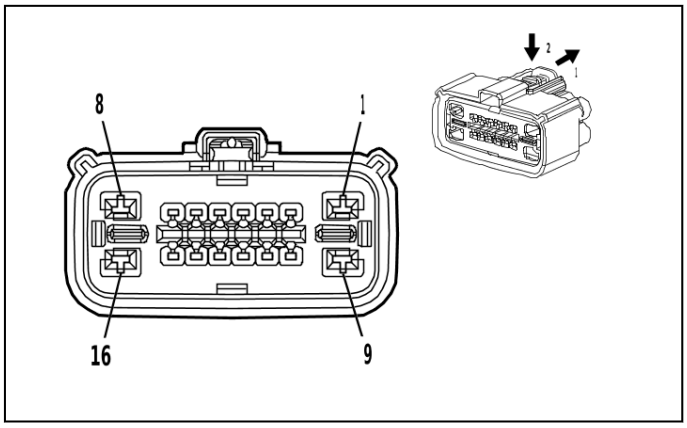
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

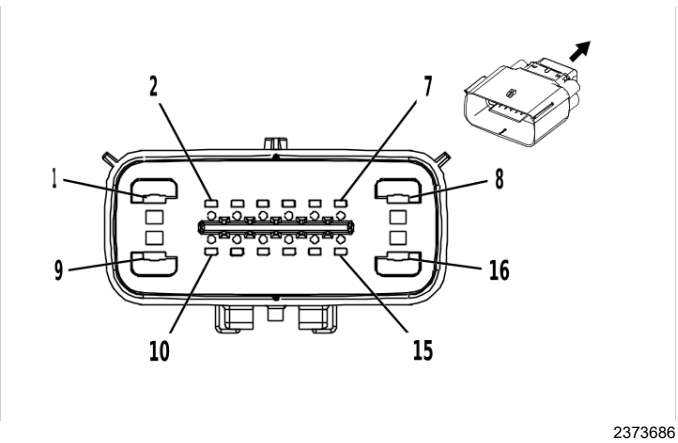
X291 Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 2.5	(1) GN	(1) 6840	(1) I	(1) —	(1) Auxiliary Device 2 Switched Voltage	(1) 1	(1) 2.5	(1) GN	(1) 6840	(1) II	(1) —
(2) 2	(2) 2.5	(2) GN	(2) 6839	(2) I	(2) —	(2) Auxiliary Device 1 Switched Voltage	(2) 2	(2) 2.5	(2) GN	(2) 6839	(2) II	(2) —
(3) 3	(3) 0.5	(3) BU	(3) 6843	(3) I	(3) —	(3) Auxiliary Device Relay 2 Control	(3) 3	(3) 0.5	(3) BU	(3) 6843	(3) II	(3) —
(4) 4	(4) 0.5	(4) BK / BU	(4) 6842	(4) I	(4) —	(4) Auxiliary Device Relay 1 Control	(4) 4	(4) 0.5	(4) BK / BU	(4) 6842	(4) II	(4) —
(5) 5	(5) 1	(5) RD / WH	(5) 5440	(5) I	(5) —	(5) Battery Positive Voltage	(5) 5	(5) 1	(5) RD / WH	(5) 5440	(5) II	(5) —
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X306 Body Wiring Harness to Seat Wiring Harness - Passenger



4283035



2373686

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 34985-2161
- Service Connector: 19368738
- Description: 16-Way F 1.5, 2.8 MX Series, Sealed(YE)

Connector Part Information
- Harness Type: Seat Wiring Harness - Passenger
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M (YE)

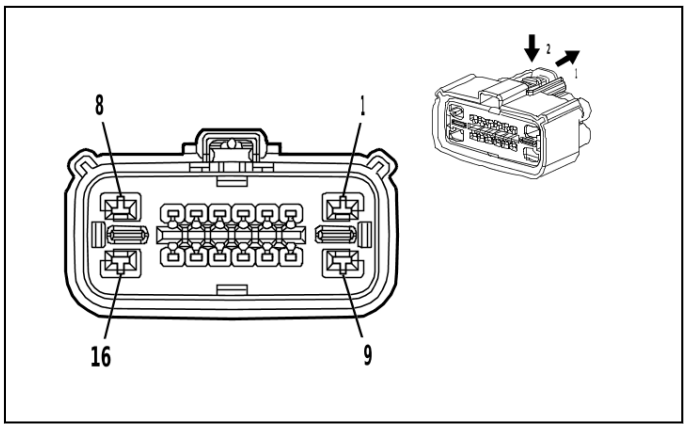
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	Not required	No Tool Required	No Tool Required

X306 Body Wiring Harness to Seat Wiring Harness - Passenger

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 3	(1) BK	(1) 1850	(1) I	(1) —	(1) Ground	(1) 1	(1) 3	(1) BK	(1) 1850	(1) III	(1) —
2 - 4	—	—	—	—	—	Not Occupied	2 - 4	—	—	—	—	—
(5) 5	(5) 0.5	(5) GN	(5) 2116	(5) II	(5) —	(5) Passenger Seat Belt Pretensioner High Control	(5) 5	(5) 0.5	(5) GN	(5) 2116	(5) III	(5) —
(6) 6	(6) 0.5	(6) OG	(6) 2117	(6) II	(6) —	(6) Passenger Seat Belt Pretensioner Low Control	(6) 6	(6) 0.5	(6) OG	(6) 2117	(6) III	(6) —
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
(9) 9	(9) 3	(9) RD/WH	(9) 3540	(9) I	(9) —	(9) Battery Positive Voltage	(9) 9	(9) 3	(9) RD/WH	(9) 3540	(9) III	(9) —
(10) 10	(10) 0.5	(10) GN	(10) 2136	(10) II	(10) —	(10) Right Front Seat Side Air Bag Low Control	(10) 10	(10) 0.5	(10) GN	(10) 2136	(10) III	(10) —
(11) 11	(11) 0.5	(11) TN/WH	(11) 2135	(11) II	(11) —	(11) Right Front Seat Side Air Bag High Control	(11) 11	(11) 0.5	(11) TN/WH	(11) 2135	(11) III	(11) —
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X307 Body Wiring Harness to Seat Wiring Harness - Driver



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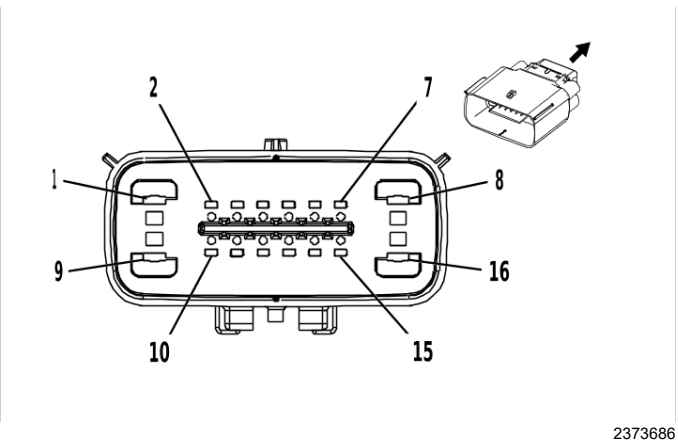


2373686

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 34985-2161
- Service Connector: 19368738
- Description: 16-Way F 1.5, 2.8 MX Series, Sealed(YE)

Connector Part Information
- Harness Type: Seat Wiring Harness - Driver
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 16-Way M (YE)

Terminal Part Information

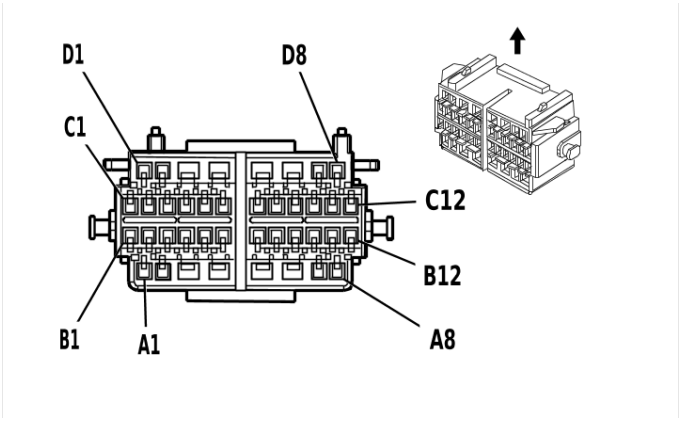
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	Not required	No Tool Required	No Tool Required

X307 Body Wiring Harness to Seat Wiring Harness - Driver

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 3	(1) RD / WH	(1) 3540	(1) I	(1) —	(1) Battery Positive Voltage	(1) 1	(1) 3	(1) RD / WH	(1) 3540	(1) III	(1) —
(2) 2	(2) 0.5	(2) PK	(2) 5057	(2) II	(2) —	(2) Seat Position Switch Low Reference	(2) 2	(2) 0.5	(2) PK	(2) 5057	(2) III	(2) —
(3) 3	(3) 0.5	(3) TN / WH	(3) 238	(3) II	(3) —	(3) Driver Seat Belt Switch Signal	(3) 3	(3) 0.5	(3) TN / WH	(3) 238	(3) III	(3) —
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
(5) 5	(5) 0.5	(5) TN / WH	(5) 2118	(5) II	(5) —	(5) Driver Seat Belt Pretensioner High Control	(5) 5	(5) 0.5	(5) TN / WH	(5) 2118	(5) III	(5) —
(6) 6	(6) 0.5	(6) O G / BK	(6) 2119	(6) II	(6) —	(6) Driver Seat Belt Pretensioner Low Control	(6) 6	(6) 0.5	(6) O G / BK	(6) 2119	(6) III	(6) —
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
(9) 9	(9) 3	(9) BK	(9) 450	(9) I	(9) —	(9) Ground	(9) 9	(9) 3	(9) BK	(9) 450	(9) III	(9) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(10) 10	(10) 0.5	(10) Y E / BK	(10) 21 38	(10) II	(10) —	(10) Left Front Seat Side Air Bag Low Control	(10) 10	(10) 0.5	(10) Y E / BK	(10) 21 38	(10) III	(10) —
(11) 11	(11) 0.5	(11) B N	(11) 21 37	(11) II	(11) —	(11) Left Front Seat Side Air Bag High Control	(11) 11	(11) 0.5	(11) B N	(11) 21 37	(11) III	(11) —
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X318 Instrument Panel Wiring Harness to Body Wiring Harness



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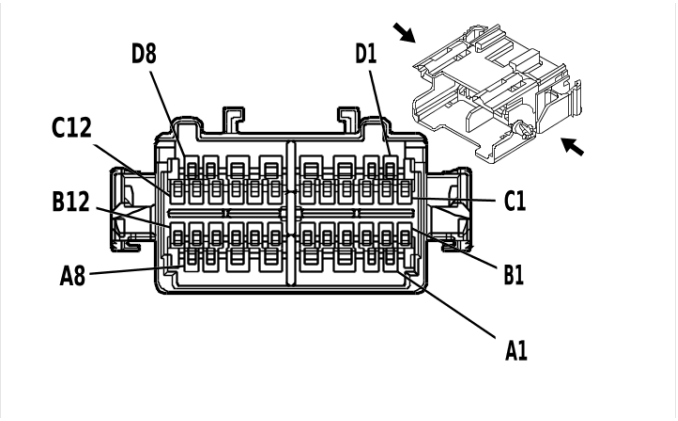


851471

Connector Part Information

- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 15448130
- Service Connector: 89046970
- Description: 40-Way F 150, 280 GT Series(L-GY)

Connector Part Information

- Harness Type: Body Wiring Harness
- OEM Connector: 15416977
- Service Connector: 19331377
- Description: 40-Way M 150, 280 GT Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575735	J-35616-14 (GN)	J-38125-215A
II	13575753	J-35616-4A (PU)	J-38125-215A
III	19300627	J-35616-14 (GN)	J-38125-215A
IV	13575500	J-35616-3 (GY)	J-38125-215A
V	13575507	J-35616-5 (PU)	J-38125-215A
VI	19354111	J-35616-3 (GY)	J-38125-215A

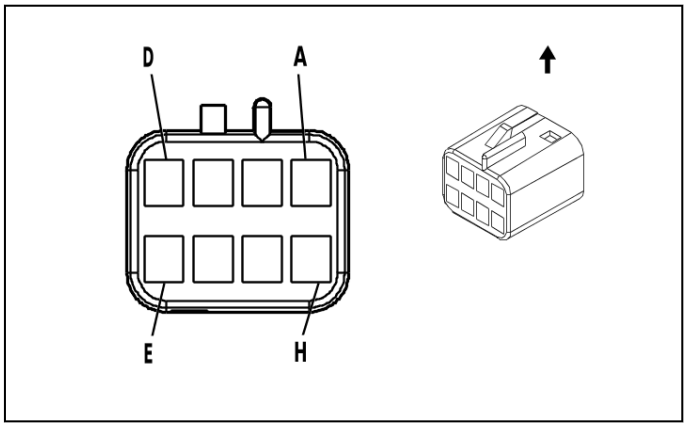
X318 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	I	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	VI	—
A2	0.8	GN	1953	I	—	Right Front Midrange Speaker [-] Control	A2	0.8	GN	1953	VI	—
A3	0.5	BK / WH	1751	II	—	Signal Ground	A3	0.5	BK / WH	1751	V	—
A4	0.5	TN / BK	371	II	—	Passenger Supplemental Inflatable Restraint Disable Switch Signal	A4	0.5	TN / BK	371	V	—
A5	0.5	BU / YE	6105	II	—	High Speed GMLAN Serial Data [+] 2	A5	0.5	BU / YE	6105	V	—
A6	0.5	WH	6106	II	—	High Speed GMLAN Serial Data [-] 2	A6	0.5	WH	6106	V	—
A7	—	—	—	—	—	Not Occupied	A7	—	—	—	—	—
A8	0.35	YE / BK	1181	III	—	Right Rear Door Open Switch Signal	A8	0.35	YE / BK	1181	IV	—
B1	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	B1	0.8	BU	1320	VI	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.8	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	B3	1	TN	1855	VI	—
B4	0.8	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	B4	1	OG	1955	VI	—
B5	—	—	—	—	—	Not Occupied	B5	—	—	—	—	—
B6	0.5	GN	5060	III	—	Low Speed GMLAN Serial Data	B6	0.5	GN	5060	IV	—
B7	0.5	BU / WH	6619	III	—	Front Middle Impact Discriminating Sensor Low Reference	B7	0.5	BU / WH	6619	IV	—
B8	0.5	BN / WH	6618	III	—	Front Middle Impact Discriminating Sensor Signal	B8	0.5	BN / WH	6618	IV	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B9	0.35	WH	3152	III	—	Lane Departure Warning Indicator Control	B9	0.5	WH	3152	IV	—
B10	0.35	GN	5060	III	—	Low Speed GMLAN Serial Data	B10	0.35	GN	5060	IV	—
B11	0.35	D-GN	6134	III	—	Body Control Module LIN Bus 3	B11	0.35	D-GN	6134	IV	—
B12	0.35	GY / WH	3153	III	—	Lane Departure Warning Disable Switch Signal	B12	0.5	GY / WH	3153	IV	—
C1	0.8	GN	654	I	—	Cellular Telephone Microphone Low Reference	C1	0.8	GN	654	VI	—
C2	0.35	PK	1139	III	—	Run/Crank Ignition 1 Voltage	C2	0.35	PK	1139	IV	—
C3	0.8	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	C3	1	TN	1859	VI	—
C4	0.8	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	C4	1	WH	1959	VI	—
C5	0.8	GY	655	I	—	Cellular Telephone Microphone Signal	C5	0.8	GY	655	VI	—
C6	—	—	—	—	—	Not Occupied	C6	—	—	—	—	—
C7	0.35	GN	5926	III	—	Rear Body Opening Open Switch Signal	C7	0.35	GN	5926	IV	—
C8	0.35	PK / BK	1303	III	—	Liftgate Ajar Switch Signal 1	C8	0.35	PK / BK	1303	IV	—
C9	0.35	TN / WH	746	III	—	Right Front Door Ajar Switch Signal	C9	0.35	TN / WH	746	IV	—
C10	0.35	GN	1177	III	—	Right Front Door Open Switch Signal	C10	0.35	GN	1177	IV	—
C11	0.5	TN	126	III	—	Left Front Door Open Switch Signal	C11	0.35	TN	126	IV	—
C12	0.35	GY / BK	745	III	—	Left Front Door Ajar Switch Signal	C12	0.35	GY / BK	745	IV	—
D1	0.8	BU	1857	I	—	Left Front Midrange Speaker [+] Control	D1	0.8	BU	1857	VI	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D2	0.8	BU	1957	I	—	Left Front Midrange Speaker [-] Control	D2	0.8	BU	1957	VI	—
D3	0.8	OG	1732	II	—	Control Module 12V Reference 3	D3	0.8	OG	1732	V	—
D4	0.5	PK	353	II	—	Passenger Supplemental Inflatable Restraint Suppression Indicator Control	D4	0.5	PK	353	V	—
D5	0.5	PK / BK	780	II	—	Driver Door Lock Switch Lock Signal	D5	0.35	PK / BK	780	V	—
D6	0.5	OG / BK	781	II	—	Driver Door Lock Switch Unlock Signal	D6	0.35	OG / BK	781	V	—
D7	0.35	BU	244	III	—	Passenger Door Lock Switch Lock Control	D7	0.35	BU	244	IV	—
D8	0.35	BU	245	III	—	Passenger Door Lock Switch Unlock Control	D8	0.35	BU	245	IV	—

X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC / C69 / C36)



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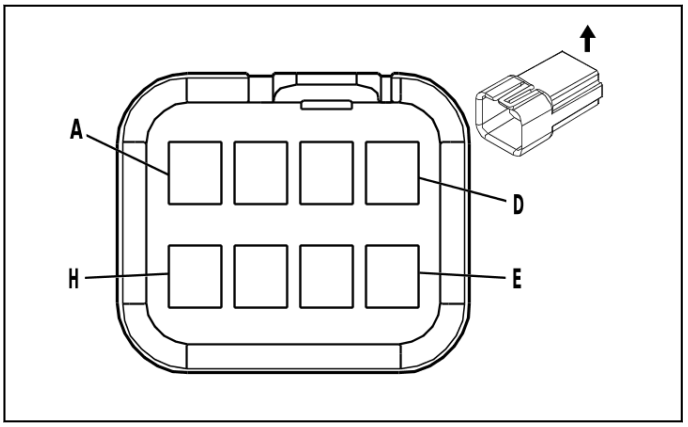


62434

Connector Part Information
- Harness Type: Auxiliary Heater Front Wiring Harness
- OEM Connector: 12047886
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 150 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12045688
- Service Connector: 13584253
- Description: 8-Way M 150 Metri-Pack Series(BK)

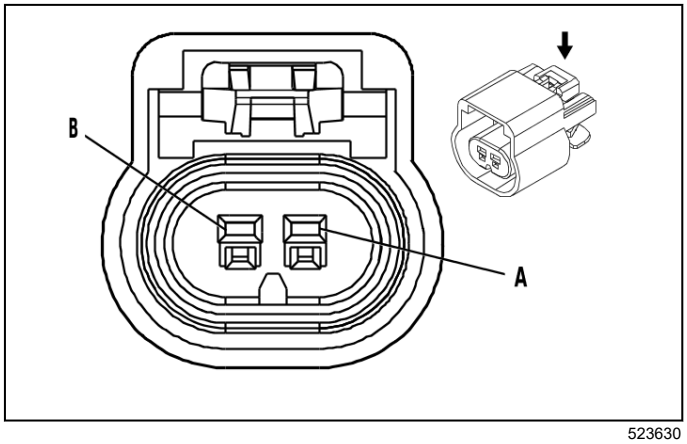
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC / C69 / C36)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	A	0.35	WH	1924	II	—
B	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	B	0.35	OG	1925	II	—
C	0.35	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	C	0.35	BU	1926	II	—
D	0.35	BN / WH	230	I	—	Instrument Panel Lamp Dimming Control	D	0.35	BN / WH	230	II	—
E	0.35	BK	450	I	—	Ground	E	0.35	BK	450	II	—
F - H	—	—	—	—	—	Not Occupied	F - H	—	—	—	—	—

X323 Airbag Wiring Harness to Body Wiring Harness (ASF)



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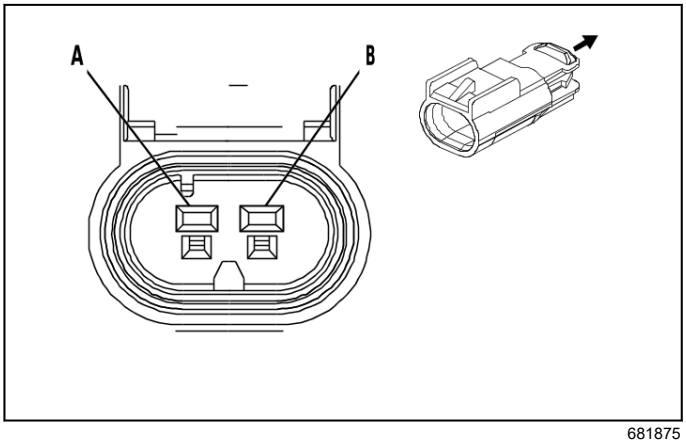


681875

Connector Part Information
- Harness Type: Airbag Wiring Harness
- OEM Connector: 13510085
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 GT Series, Sealed(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 13510099
- Service Connector: 13580103
- Description: 2-Way M 150 GT Series, Sealed(BK)

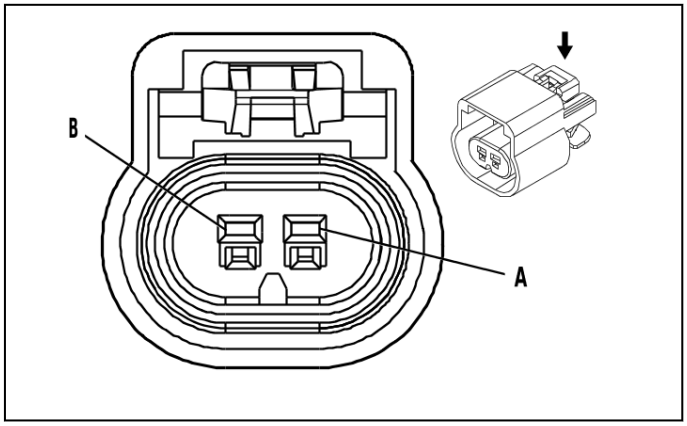
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X323 Airbag Wiring Harness to Body Wiring Harness (ASF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GY / BK	6621	I	—	Left Middle Side Impact Sensor Low Reference	A	0.5	GY / BK	6621	II	—
B	0.5	GN / WH	6620	I	—	Left Middle Side Impact Sensor Signal	B	0.5	GN / WH	6620	II	—

X324 Airbag Wiring Harness to Body Wiring Harness (ASF)



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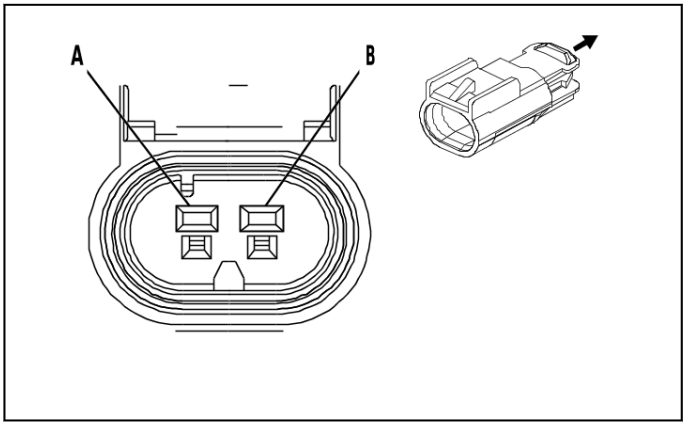


681875

Connector Part Information
- Harness Type: Airbag Wiring Harness
- OEM Connector: 13510085
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 GT Series, Sealed(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 13510099
- Service Connector: 13580103
- Description: 2-Way M 150 GT Series, Sealed(BK)

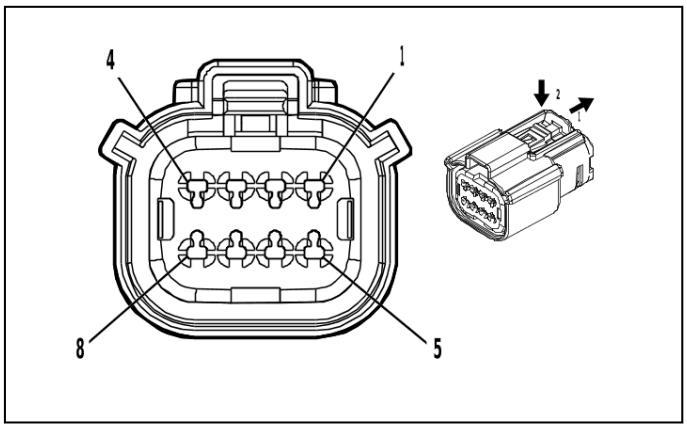
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X324 Airbag Wiring Harness to Body Wiring Harness (ASF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GN / WH	6625	I	—	Right Middle Side Impact Sensor Low Reference	A	0.5	GN / WH	6625	II	—
B	0.5	BU / BK	6624	I	—	Right Middle Side Impact Sensor Signal	B	0.5	BU / BK	6624	II	—

X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)



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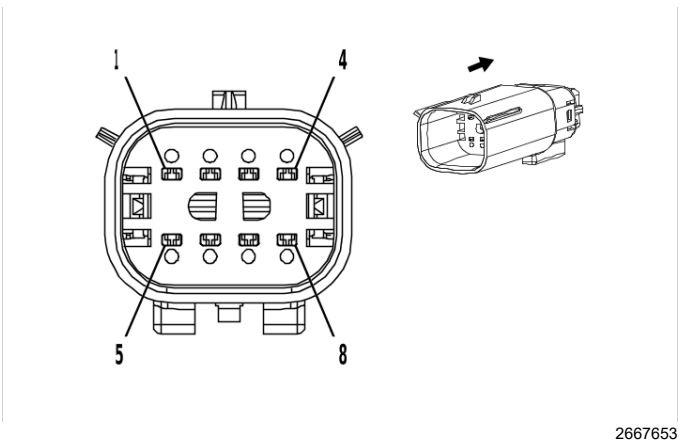


2667653

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 33472-4806
- Service Connector: 84928314
- Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 33482-4801
- Service Connector: 19370460
- Description: 8-Way M 1.5 MX Series, Sealed(BK)

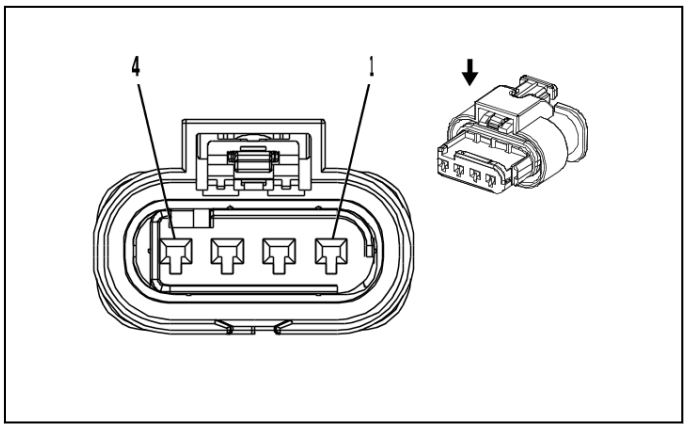
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
(4) 4	(4) 0.5	(4) GN	(4) 24	(4) I	(4) —	(4) Backup Lamp Control	(4) 4	(4) 0.5	(4) GN	(4) 24	(4) II	(4) —
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
(7) 7	(7) 0.5	(7) GN	(7) 24	(7) I	(7) —	(7) Backup Lamp Control	(7) 7	(7) 0.5	(7) GN / WH	(7) 24	(7) II	(7) —
(8) 8	(8) 0.5	(8) PK	(8) 239	(8) I	(8) —	(8) Run/ Crank Ignition 1 Voltage	(8) 8	(8) 0.5	(8) VT / WH	(8) 239	(8) II	(8) —

X330 Instrument Panel Wiring Harness to Body Wiring Harness



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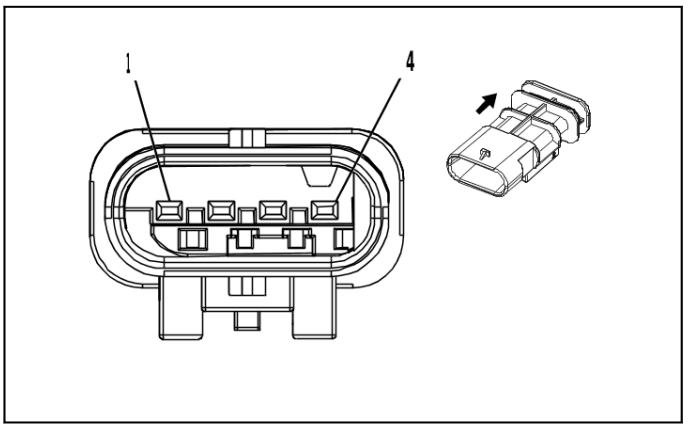


3225223

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 1-2141402-4
- Service Connector: 13586137
- Description: 4-Way F 1.2 Series, Sealed(YE)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 1-1564559-4
- Service Connector: 19299698
- Description: 4-Way M 1.2 Series, Sealed(YE)

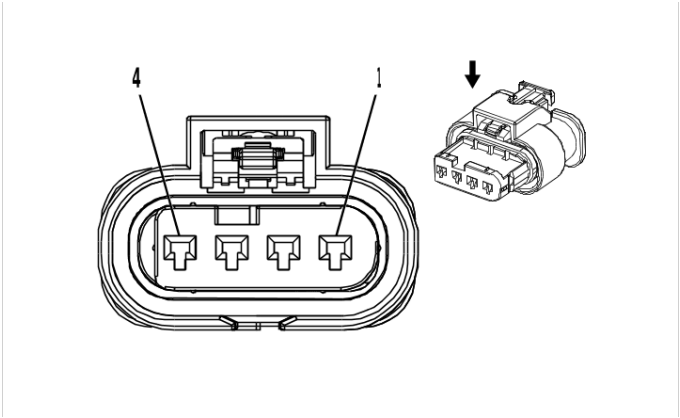
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X330 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) TN	(1) 3021	(1) I	(1) —	(1) Steering Wheel Air Bag Stage 1 High Control	(1) 1	(1) 0.5	(1) TN	(1) 3021	(1) II	(1) —
(2) 2	(2) 0.5	(2) BN	(2) 3020	(2) I	(2) —	(2) Steering Wheel Air Bag Stage 1 Low Control	(2) 2	(2) 0.5	(2) BN	(2) 3020	(2) II	(2) —
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X331 Instrument Panel Wiring Harness to Body Wiring Harness



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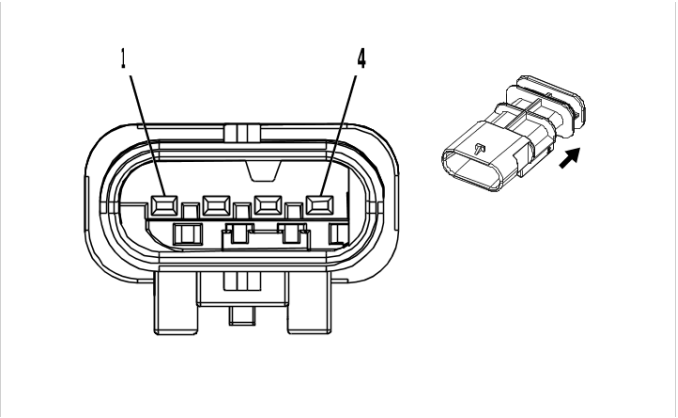


2684563

Connector Part Information
- Harness Type: Instrument Panel Wiring Harness
- OEM Connector: 2-2141402-4
- Service Connector: 85571685
- Description: 4-Way F 1.2 Series, Sealed(YE)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 2-1564559-4
- Service Connector: 13586576
- Description: 4-Way M 1.2 Series, Sealed(YE)

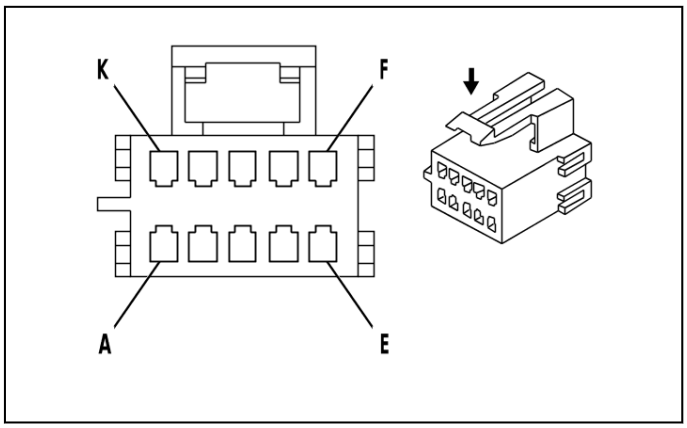
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X331 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) YE	(1) 3025	(1) I	(1) —	(1) Passenger Instrument Panel Air Bag Stage 1 High Control	(1) 1	(1) 0.5	(1) YE	(1) 3025	(1) II	(1) —
(2) 2	(2) 0.5	(2) OG	(2) 3024	(2) I	(2) —	(2) Passenger Instrument Panel Air Bag Stage 1 Low Control	(2) 2	(2) 0.5	(2) OG	(2) 3024	(2) II	(2) —
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X400 Rear Door Door Wiring Harness to Body Wiring Harness



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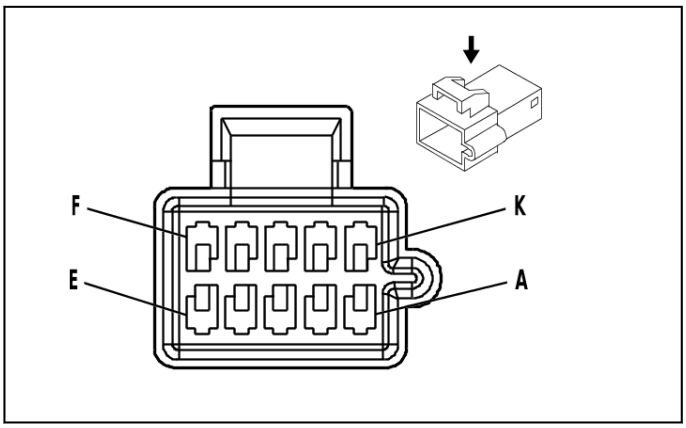


808703

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 15324054
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 150 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 15324758
- Service Connector: 19179279
- Description: 10-Way M 150 Metri-Pack Series(BK)

Terminal Part Information

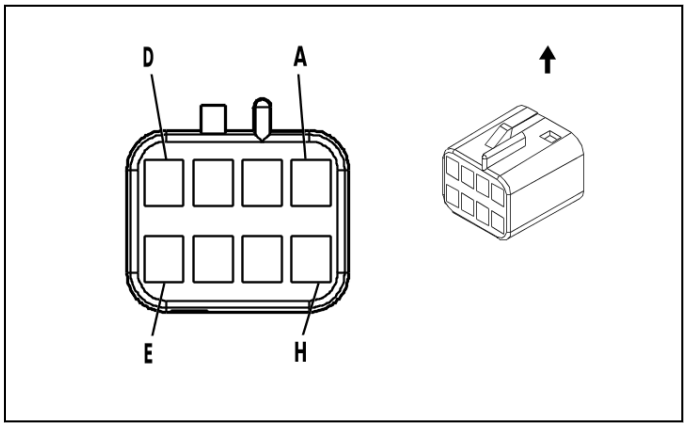
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	13575463	J-35616-3 (GY)	J-38125-12A
III	Not Available	J-35616-3 (GY)	J-38125-12A

X400 Rear Door Door Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	A	1	TN	1855	III	—
B	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	B	1	OG	1955	III	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.35	BK / WH	1051	I	—	Signal Ground	D	1	BK / WH	1051	III	—
E	0.35	BU	245	I	—	Passenger Door Lock Switch Unlock Control	E	0.35	BU	245	II	—
F	1	GY	295	I	—	Door Lock Actuator Lock Control	F	1	GY	295	III	—
G	1	TN / BK	1095	I	—	Right Rear Door Lock Actuator Unlock Control	G	1	TN / BK	1095	III	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.35	GN	5926	I	—	Rear Body Opening Open Switch Signal	H	0.35	GN	5926	II	—
J	0.35	PK / BK	1303	I	—	Liftgate Ajar Switch Signal 1	J	0.35	PK / BK	1303	II	—
K	0.35	BU	244	I	—	Passenger Door Lock Switch Lock Control	K	0.35	BU	244	II	—

X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway)



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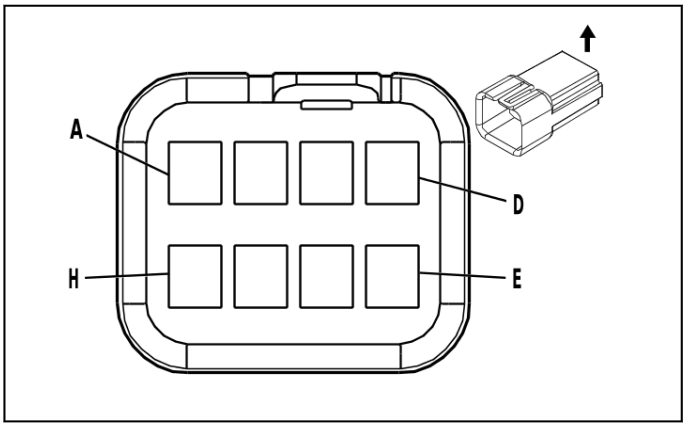


62434

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12045688
- Service Connector: 13584253
- Description: 8-Way M 150 Metri-Pack Series(BK)

Terminal Part Information

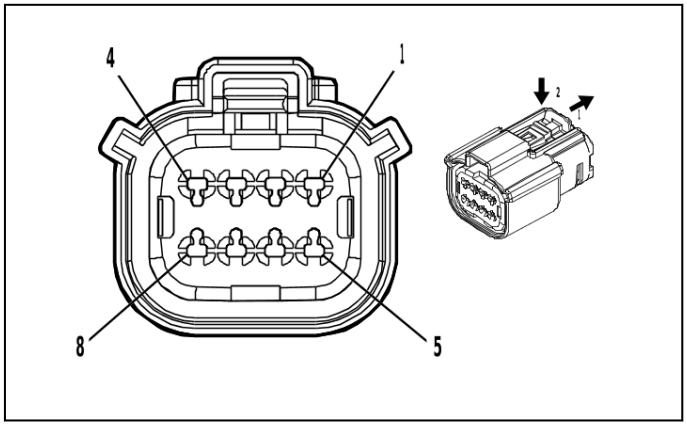
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
H	0.5	BARE	6799	I	—	Camera Shield Ground	H	0.5	BK	6799	II	—
F	0.5	GN	24	I	—	Backup Lamp Control	F	0.5	GN	24	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
D	0.5	BK / WH	351	I	—	Signal Ground	D	0.5	BK / WH	351	II	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B	0.5	BU	7642	I	—	Frontview Camera 2 Signal [-]	B	0.5	BU	7642	II	—
A	0.5	BU	7641	I	—	Frontview Camera 2 Signal [+]	A	0.5	BU	7641	II	—
C - G	—	—	—	—	—	Not Occupied	C - G	—	—	—	—	—

X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)



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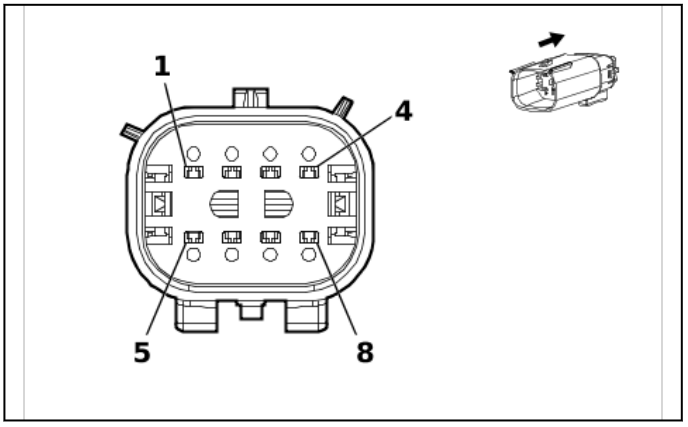


5429080

Connector Part Information
- Harness Type: Rearview Camera Wiring Harness
- OEM Connector: 33472-4806
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12045688
- Service Connector: 13584253
- Description: 8-Way M 150 Metri-Pack Series(BK)

Terminal Part Information

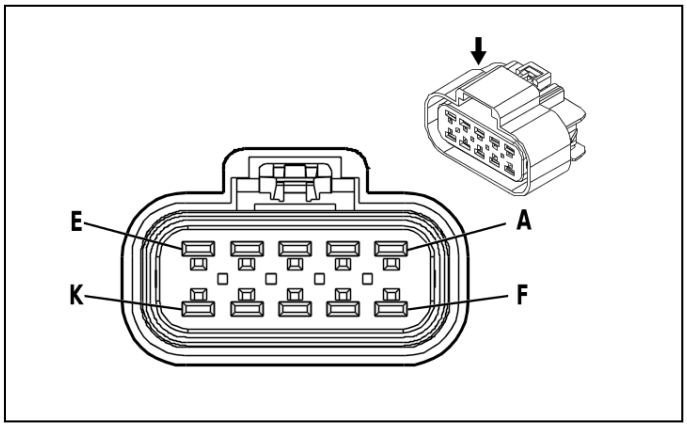
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)

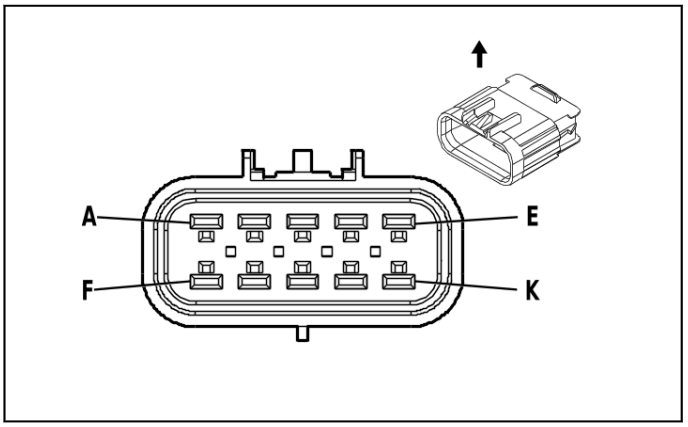
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) BU / YE	(1) 7641	(1) I	(1) —	(1) Frontview Camera 2 Signal [+]	(1) 1	(1) 0.5	(1) BU / YE	(1) 7641	(1) II	(1) —
(2) 2	(2) 0.5	(2) WH / YE	(2) 7642	(2) I	(2) —	(2) Frontview Camera 2 Signal [-]	(2) 2	(2) 0.5	(2) WH / YE	(2) 7642	(2) II	(2) —
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—
(5) 5	(5) 0.5	(5) BN	(5) 6799	(5) I	(5) —	(5) Camera Shield Ground	(5) 5	(5) 0.5	(5) BN	(5) 6799	(5) II	(5) —
(6) 6	(6) 0.5	(6) BK / WH	(6) 351	(6) I	(6) —	(6) Signal Ground	(6) 6	(6) 0.5	(6) BK / WH	(6) 351	(6) II	(6) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(7) 7	(7) 0.5	(7) GN / WH	(7) 24	(7) I	(7) —	(7) Backup Lamp Control	(7) 7	(7) 0.5	(7) GN / WH	(7) 24	(7) II	(7) —
(8) 8	(8) 0.5	(8) VT / WH	(8) 239	(8) I	(8) —	(8) Run/ Crank Ignition 1 Voltage	(8) 8	(8) 0.5	(8) VT / WH	(8) 239	(8) II	(8) —

X405 Chassis Wiring Harness to Chassis Wiring Harness - Cutaway



655815



655819

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 15326660
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way F 280 GT Series, Sealed(BK)

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 15326661
- Service Connector: Service by Harness - See Part Catalog
- Description: 10-Way M 280 GT Series, Sealed(BK)

Terminal Part Information

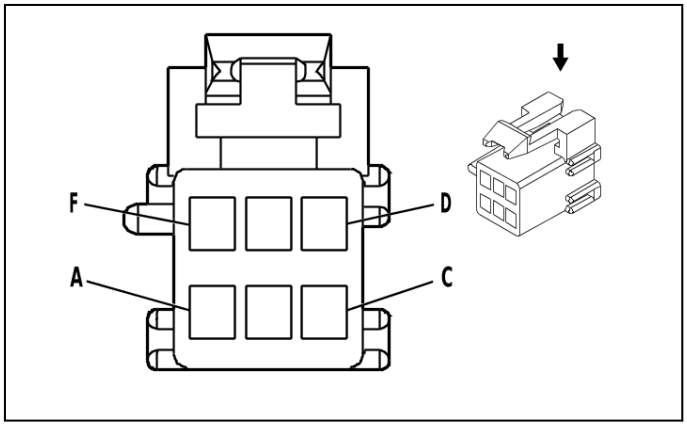
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	No Tool Required	No Tool Required
III	Not required	J-35616-5 (PU)	No Tool Required

X405 Chassis Wiring Harness to Chassis Wiring Harness - Cutaway

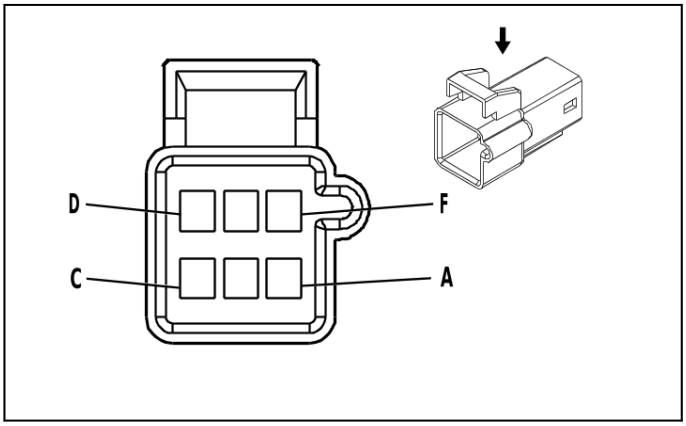
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - B	—	—	—	—	—	Not Occupied	A - B	—	—	—	—	—
C	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	C	0.8	BU	1320	III	—
D	1	YE	618	II	—	Left Rear Turn Signal Lamp Control	D	1	YE	618	III	—
E	1	GN	619	II	—	Right Rear Turn Signal Lamp Control	E	1	GN	619	III	—
F	1	BN	2109	II	—	Trailer Park Lamp Control	F	1	BN	2109	III	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
G	0.8	BK	150	I	—	Ground	G	1	BK	150	III	—
H	1	GN	1624	II	—	Trailer Backup Lamp Control	H	1	GN	1624	III	—
J	—	—	—	—	—	Not Occupied	J	—	—	—	—	—
K	0.8	BU / WH	149	II	—	Courtesy Lamp Control	K	0.8	BU / WH	149	III	—

X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36 / C69)



40422



40425

Connector Part Information
- Harness Type: Auxiliary Heater and Air Conditioning Wiring Harness
- OEM Connector: 12064762
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 150 Metri-Pack Series(GY)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12064763
- Service Connector: 12101876
- Description: 6-Way M 150 Metri-Pack Series(GY)

Terminal Part Information

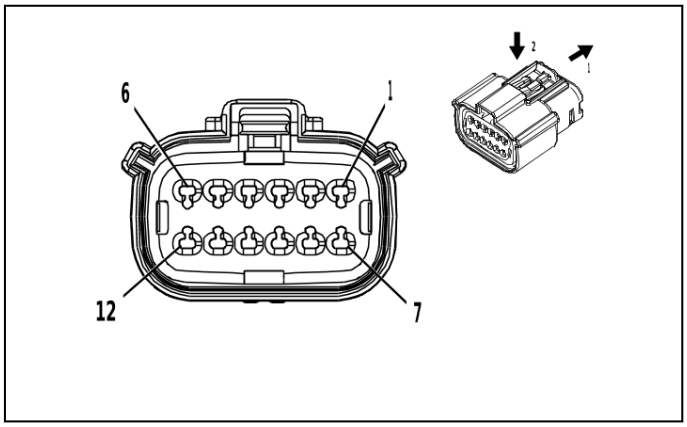
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36 / C69)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	OG	2775	I	—	Rear Air Temperature Door Actuator Control	A	0.35	OG	2775	II	—
B	0.35	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	B	0.35	BU	1926	II	—
C	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	C	0.35	WH	1924	II	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	D	0.35	OG	1925	II	—
E	0.35	BN	341	I	—	Run Ignition 3 Voltage	E	0.35	BN	341	II	—
F	0.35	GY	2599	I	—	Rear Mode Door Actuator Signal	F	0.35	GY	2599	II	—

X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7 / UFT)



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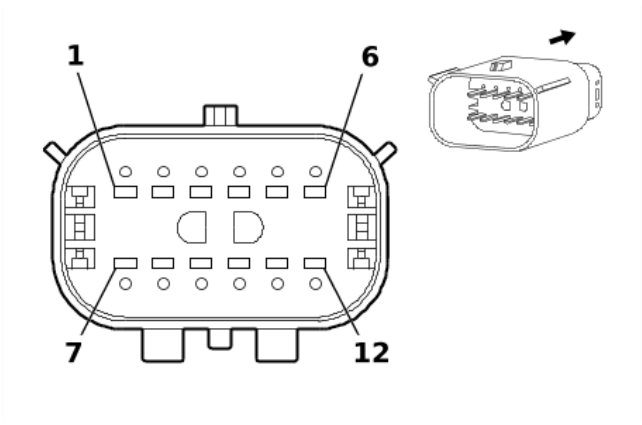


1825167

Connector Part Information
- Harness Type: Rear Object Alarm Sensor Wiring Harness
- OEM Connector: 33472-1206
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 33482-6201
- Service Connector: Service by Harness - See Part Catalog
- Description: 12-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

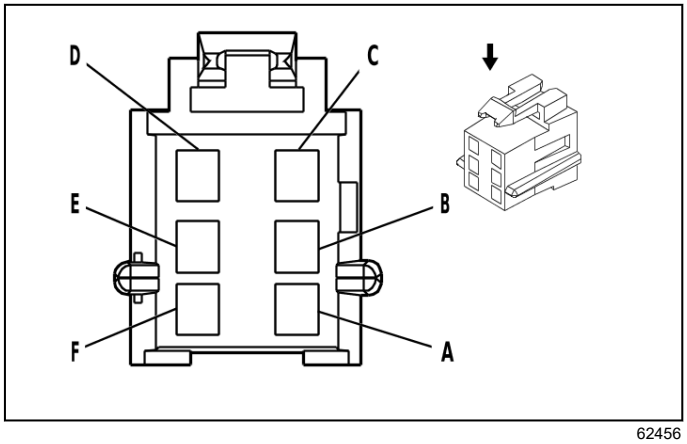
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7 / UFT)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 0.5	(1) YE / WH	(1) 2377	(1) I	(1) —	(1) Right Rear Middle Parking Assist Sensor Signal	(1) 1	(1) 0.5	(1) YE / WH	(1) 2377	(1) II	(1) —
(2) 2	(2) 0.5	(2) YE / VT	(2) 2378	(2) I	(2) —	(2) Right Rear Outer Parking Assist Sensor Signal	(2) 2	(2) 0.5	(2) YE / VT	(2) 2378	(2) II	(2) —

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(3) 3	(3) 0.5	(3) GY	(3) 2379	(3) I	(3) —	(3) Object Sensor Low Reference	(3) 3	(3) 0.5	(3) BK / GY	(3) 2379	(3) II	(3) —
(4) 4	(4) 0.5	(4) BN / WH	(4) 2374	(4) I	(4) —	(4) Object Sensor Voltage Reference	(4) 4	(4) 0.5	(4) BN / WH	(4) 2374	(4) II	(4) —
(5) 5	(5) 0.5	(5) YE	(5) 2375	(5) I	(5) —	(5) Left Rear Outer Parking Assist Sensor Signal	(5) 5	(5) 0.5	(5) YE	(5) 2375	(5) II	(5) —
(6) 6	(6) 0.5	(6) YE / BU	(6) 2376	(6) I	(6) —	(6) Left Rear Middle Parking Assist Sensor Signal	(6) 6	(6) 0.5	(6) YE / BU	(6) 2376	(6) II	(6) —
(7) 7	(7) 0.5	(7) BK	(7) 2150	(7) I	(7) —	(7) Ground	(7) 7	(7) 1	(7) BK	(7) 2150	(7) II	(7) —
(8) 8	(8) 0.5	(8) GN	(8) 5060	(8) I	(8) —	(8) Low Speed GMLAN Serial Data	(8) 8	(8) 0.5	(8) GN	(8) 5060	(8) II	(8) —
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
(10) 10	(10) 0.5	(10) GY / YE	(10) 5853	(10) I	(10) —	(10) Driver Side Side Object Detection LED Signal 1	(10) 10	(10) 0.5	(10) GY / YE	(10) 5853	(10) II	(10) —
(11) 11	(11) 0.5	(11) GY	(11) 5861	(11) I	(11) —	(11) Passenger Side Object Detection LED Signal 1	(11) 11	(11) 0.5	(11) GY	(11) 5861	(11) II	(11) —
(12) 12	(12) 0.5	(12) RD / GN	(12) 3140	(12) I	(12) —	(12) Battery Positive Voltage	(12) 12	(12) 0.5	(12) RD / GN	(12) 3140	(12) II	(12) —

X410 Tail Lamp Wiring Harness to Body Wiring Harness



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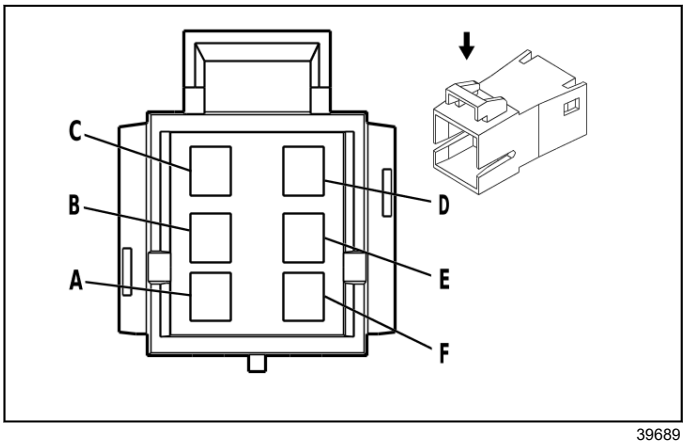


39689

Connector Part Information
- Harness Type: Tail Lamp Wiring Harness
- OEM Connector: 12064752
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12064754
- Service Connector: 19368739
- Description: 6-Way M 280 Metri-Pack Series(BK)

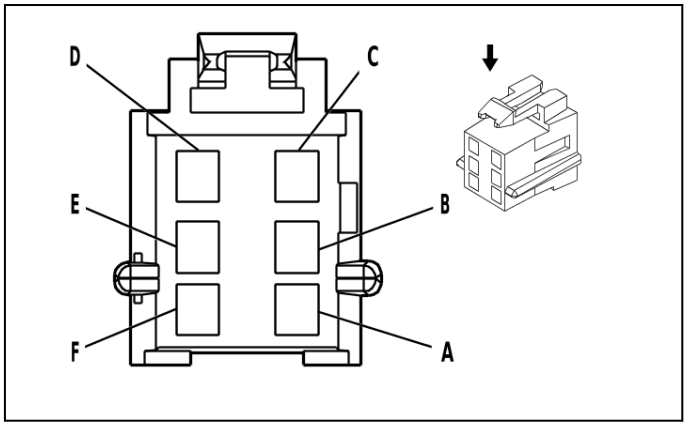
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X410 Tail Lamp Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	I	—	Left Rear Park Lamp Control	A	0.5	BN	2509	II	—
B	1	YE	618	I	—	Left Rear Turn Signal Lamp Control	B	1	YE	618	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.8	BK	850	I	—	Ground	D	0.8	BK	850	II	—
E	—	—	—	—	—	Not Occupied	E	—	—	—	—	—
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—

X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness



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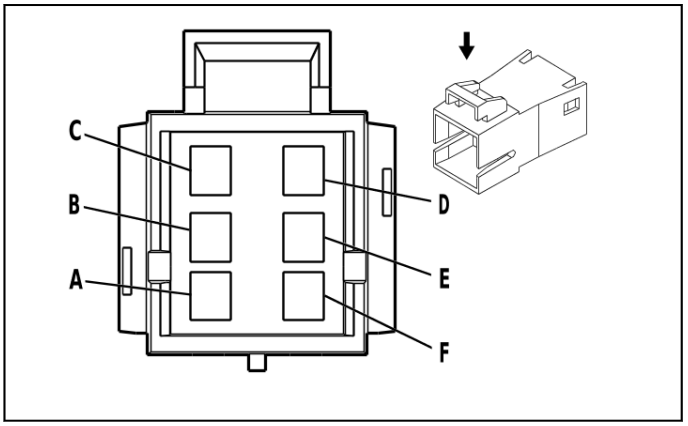


39689

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness - Left
- OEM Connector: 12064752
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12064754
- Service Connector: 19368739
- Description: 6-Way M 280 Metri-Pack Series(BK)

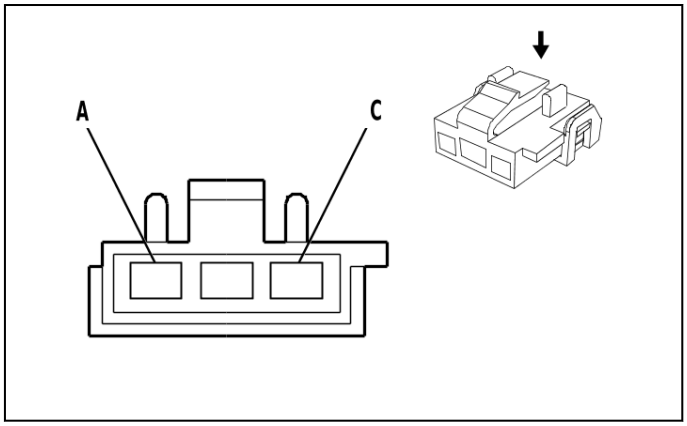
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	A	1	TN	1859	II	—
B	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	B	1	WH	1959	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	5	PU	293	I	—	Rear Defogger Grid Control	D	5	PU	293	II	—
E	3	BK	850	I	—	Ground	E	3	BK	850	II	—
F	—	—	—	—	—	Not Occupied	F	—	—	—	—	—

X412 Rear Door Door Wiring Harness to Body Wiring Harness



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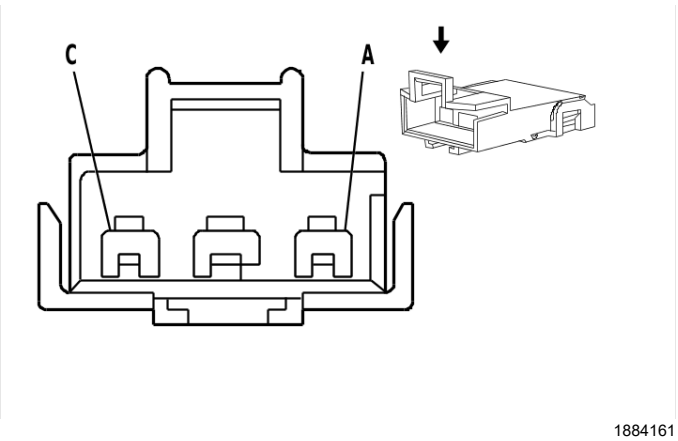


1884161

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 12020014
- Service Connector: Service by Harness - See Part Catalog
- Description: 3-Way F Weather Pack Series, Sealed(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12045681
- Service Connector: 19368884
- Description: 3-Way M 280, 480 Metri-Pack Series(BK)

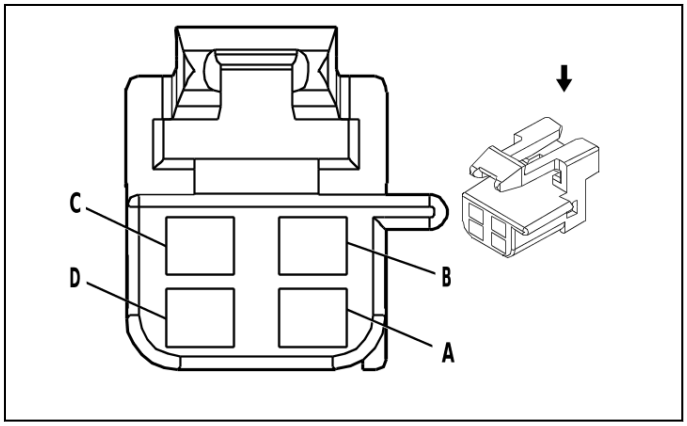
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required
III	Not required	J-35616-40 (BU)	No Tool Required
IV	Not required	J-35616-5 (PU)	No Tool Required

X412 Rear Door Door Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	II	—	Left Rear Park Lamp Control	A	0.5	BN	2509	IV	—
B	5	PU	293	I	—	Rear Defogger Grid Control	B	5	PU	293	III	—
C	0.5 3	BK BK	1050 1050	II	— —	Ground Ground	C	3	BK	1050	IV	—

X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness



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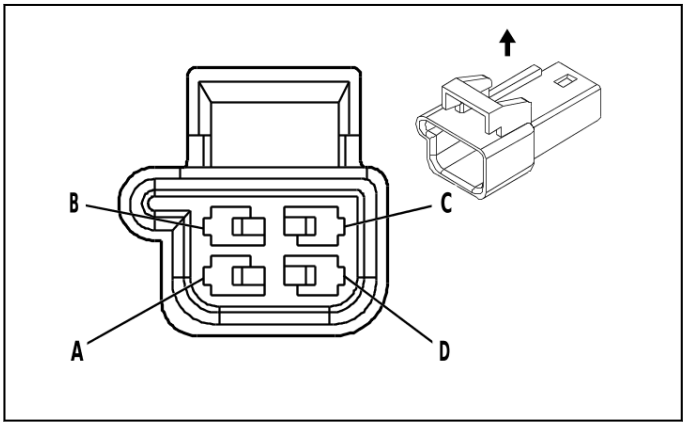


40399

Connector Part Information
- Harness Type: Radio Rear Speaker Wiring Harness
- OEM Connector: 12064760
- Service Connector: Service by Harness - See Part Catalog
- Description: 4-Way F 150 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12065658
- Service Connector: 19368719
- Description: 4-Way M 150 Metri-Pack Series(BK)

Terminal Part Information

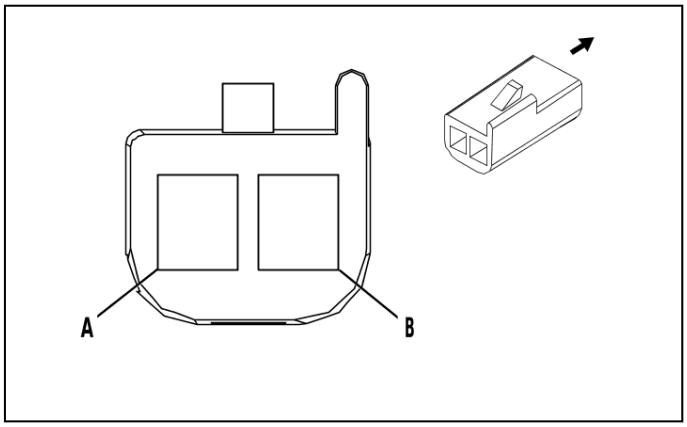
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	WH	1959	I	—	Left Rear Midrange Speaker [-] Control	A	1	WH	1959	II	—
B	1	TN	1859	I	—	Left Rear Midrange Speaker [+] Control	B	1	TN	1859	II	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
C	1	OG	1955	I	—	Right Rear Midrange Speaker [-] Control	C	1	OG	1955	II	—
D	1	TN	1855	I	—	Right Rear Midrange Speaker [+] Control	D	1	TN	1855	II	—

X419 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness



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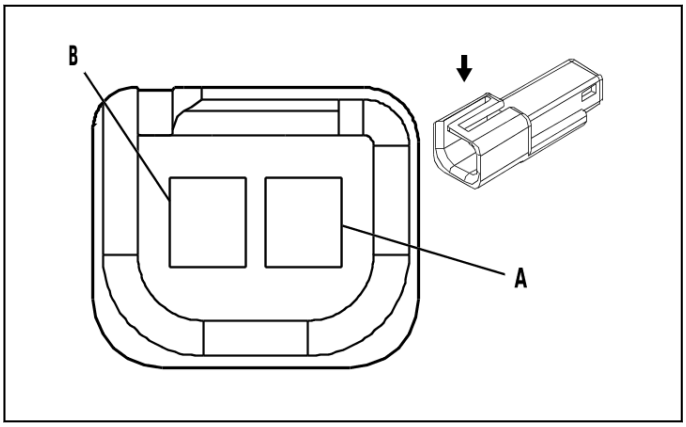


1664595

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12048457
- Service Connector: 13584278
- Description: 2-Way M 150 Metri-Pack Series(BK)

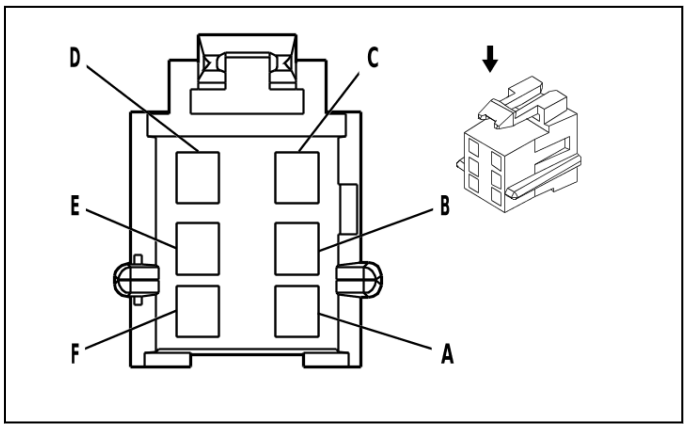
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X419 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B	0.8	BK	850	I	—	Ground	B	0.8	BK	850	II	—
A	0.8	BU	1320	I	—	Center High Mounted Stop Lamp Control 2	A	0.8	BU	1320	II	—

X420 Tail Lamp Wiring Harness to Body Wiring Harness



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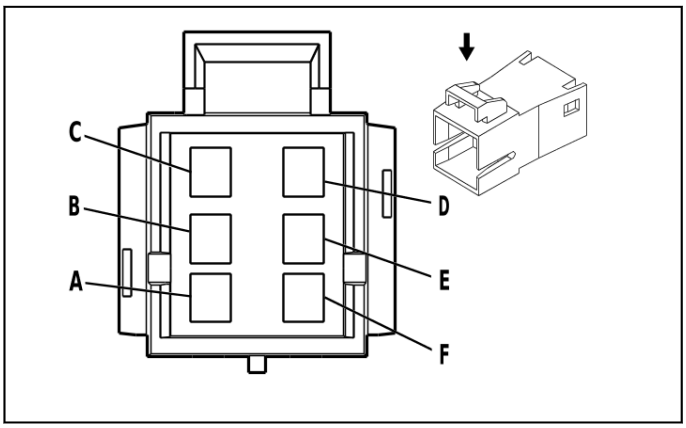


39689

Connector Part Information
- Harness Type: Tail Lamp Wiring Harness
- OEM Connector: 12064752
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 280 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 12064754
- Service Connector: 19368739
- Description: 6-Way M 280 Metri-Pack Series(BK)

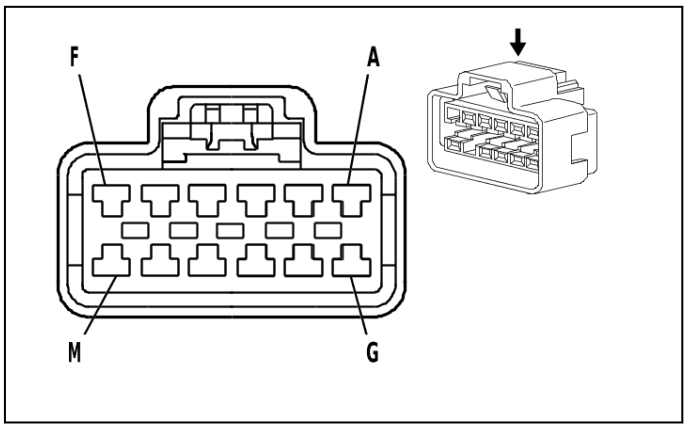
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-5 (PU)	No Tool Required

X420 Tail Lamp Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2609	I	—	Right Rear Park Lamp Control	A	0.5	BN	2609	II	—
B	1	GN	619	I	—	Right Rear Turn Signal Lamp Control	B	1	GN	619	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.8	BK	1050	I	—	Ground	D	0.8	BK	1050	II	—
E	—	—	—	—	—	Not Occupied	E	—	—	—	—	—
F	0.8	GN	24	I	—	Backup Lamp Control	F	0.8	GN	24	II	—

X421 Roof Console Wiring Harness to Body Wiring Harness



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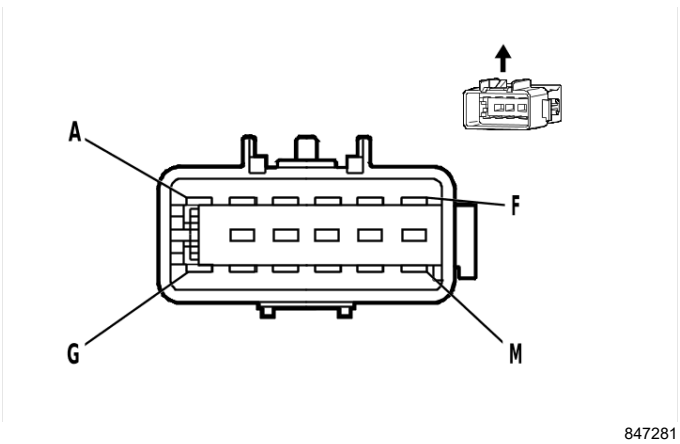


847281

Connector Part Information
- Harness Type: Roof Console Wiring Harness
- OEM Connector: 15326110
- Service Connector: 15326110
- Description: 12-Way F 280 GT Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 15326942
- Service Connector: 15326942
- Description: 12-Way M 280 GT Series(BK)

Terminal Part Information

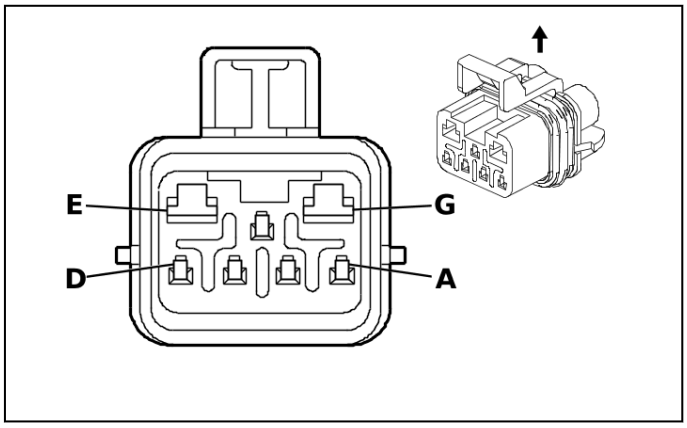
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575753	J-35616-4A (PU)	J-38125-215A
II	13575507	J-35616-5 (PU)	J-38125-215A

X421 Roof Console Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.8	BU / WH	149	I	—	Courtesy Lamp Control	A	0.8	BU / WH	149	II	—
B	0.8	BU / WH	149	I	—	Courtesy Lamp Control	B	0.8	BU / WH	149	II	—
C	0.35	BN / WH	230	I	—	Instrument Panel Lamp Dimming Control	C	0.35	BN / WH	230	II	—
D	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	D	0.5	WH	1924	II	—
E	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control 2	E	0.5	OG	1925	II	—
F	0.5	BU	1926	I	—	Auxiliary Blower Motor Low Speed Control 2	F	0.5	BU	1926	II	—
G	0.35	BN	341	I	—	Run Ignition 3 Voltage	G	0.35	BN	341	II	—
H	0.8	BK	1050	I	—	Ground	H	0.8	BK	1050	II	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
J	0.8	OG	1732	I	—	Control Module 12V Reference 3	J	0.8	OG	1732	II	—
K	0.5	BN	5263	I	—	Auxiliary HVAC Rear Temperature Signal	K	0.5	BN	5263	II	—
L	0.5	PU / WH	5264	I	—	Auxiliary HVAC Rear Mode Signal	L	0.5	PU / WH	5264	II	—
M	0.5	PK / BK	5265	I	—	Auxiliary HVAC Rear Control Signal	M	0.5	PK / BK	5265	II	—

X450 Trailer Jumper Wiring Harness to Chassis Wiring Harness (NE7)



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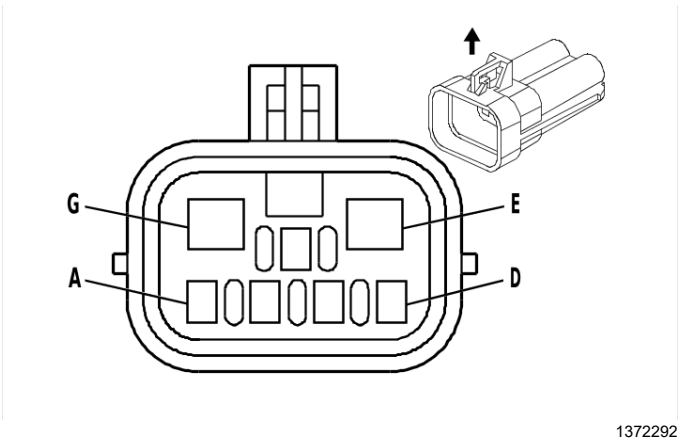


1372292

Connector Part Information
- Harness Type: Trailer Jumper Wiring Harness
- OEM Connector: 12059472
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 150 Metri-Pack, 480 Series, Sealed(BK)

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 12052200
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way M 150, 480 Metri-Pack Series, Sealed(BK)

Terminal Part Information

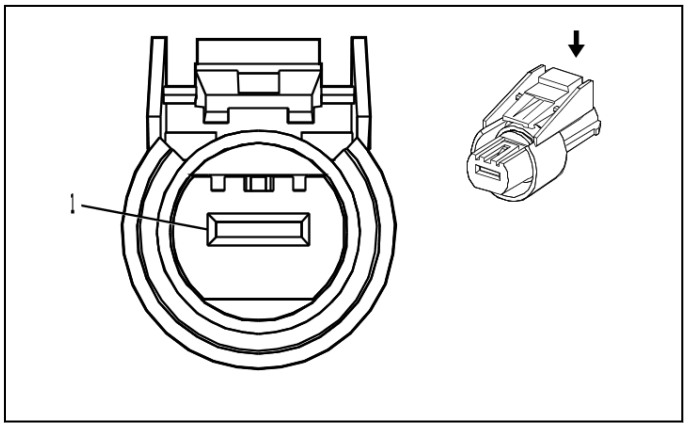
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required
III	Not required	J-35616-41 (BU)	No Tool Required

X450 Trailer Jumper Wiring Harness to Chassis Wiring Harness (NE7)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	—	GN	1624	I	—	Trailer Backup Lamp Control	A	1	GN	1624	II	—
B	—	BN	2109	I	—	Trailer Park Lamp Control	B	1	BN	2109	II	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
C	—	YE	1618	I	—	Left Rear Trailer Stop/ Turn Lamp Control	C	1	YE	1618	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—
E	—	BU	47	I	—	Trailer Auxiliary Control	E	3	BU	47	III	—
F	—	GN	1619	I	—	Right Rear Trailer Stop/ Turn Lamp Control	F	1	GN	1619	II	—
G	—	RD / BK	742	I	—	Battery Positive Voltage	G	3	RD / BK	742	III	—

X460 Chassis Wiring Harness to Chassis Wiring Harness



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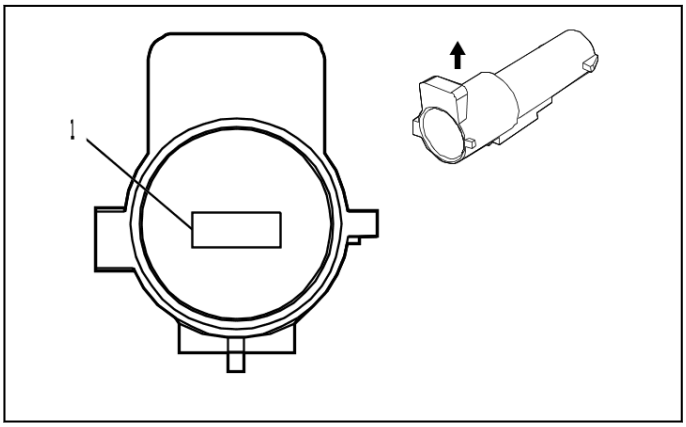


814660

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 15326120
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way F 800 Metri-Pack Series, Sealed(BK)

Connector Part Information
- Harness Type: Chassis Wiring Harness
- OEM Connector: 15326119
- Service Connector: Service by Harness - See Part Catalog
- Description: 1-Way M 800 Metri-Pack Series, Sealed(BK)

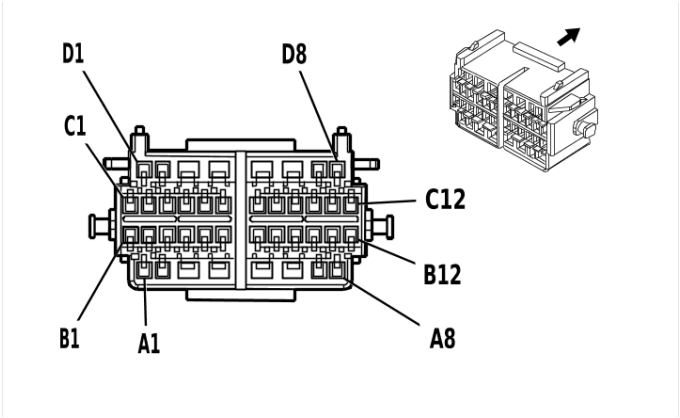
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-44 (YE)	No Tool Required
II	Not required	J-35616-45 (YE)	No Tool Required

X460 Chassis Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
(1) 1	(1) 8	(1) WH	(1) 22	(1) I	(1) —	(1) Trailer Ground	(1) 1	(1) 8	(1) WH	(1) 22	(1) II	(1) —

X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness



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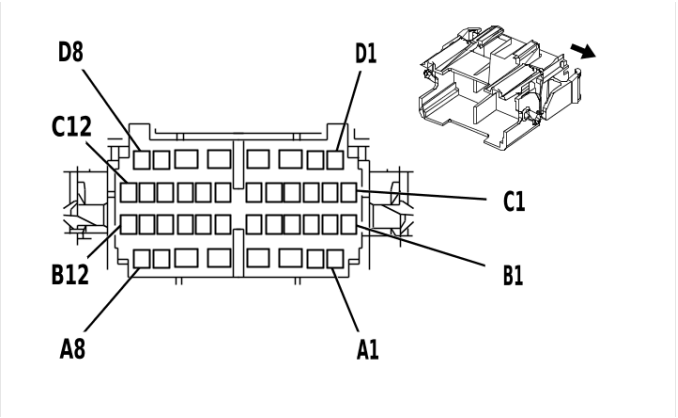


1715230

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 15448129
- Service Connector: Service by Harness - See Part Catalog
- Description: 40-Way F 150, 280 GT Series(BK)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 15416976
- Service Connector: 89047197
- Description: 40-Way M 150, 280 GT Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required
IV	13575500	J-35616-3 (GY)	J-38125-215A
V	13575507	J-35616-5 (PU)	J-38125-215A
VI	13575510	J-35616-5 (PU)	J-38125-215A
VII	19354111	J-35616-3 (GY)	J-38125-215A

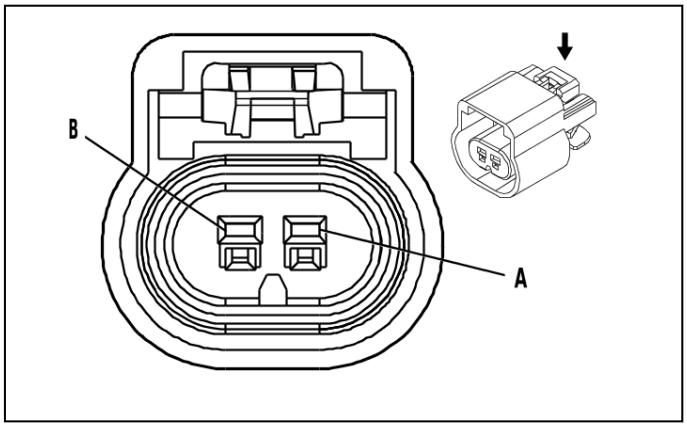
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.35	TN	126	II	—	Left Front Door Open Switch Signal	A1	0.35	TN	126	IV	—
A2 - A4	—	—	—	—	—	Not Occupied	A2 - A4	—	—	—	—	—
A5	3	BK	450	III	—	Ground	A5	3	BK	450	VI	—
A6	0.35	BN / WH	230	III	—	Instrument Panel Lamp Dimming Control	A6	0.35	BN / WH	230	V	—
A7	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A7	0.8	OG	2267	VII	—
A8	0.35	PU / WH	889	II	—	Right Outside Rearview Mirror Motor Down Control	A8	0.5	PU / WH	889	IV	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B1	0.35	OG / BK	781	II	—	Driver Door Lock Switch Unlock Signal	B1	0.35	OG / BK	781	IV	—
B2	0.35	PK / BK	780	II	—	Driver Door Lock Switch Lock Signal	B2	0.35	PK / BK	780	IV	—
B3	0.35	GY / BK	745	II	—	Left Front Door Ajar Switch Signal	B3	0.35	GY / BK	745	IV	—
B4	0.35	BK	450	II	—	Ground	B4	0.35	BK	450	IV	—
B5 - B6	—	—	—	—	—	Not Occupied	B5 - B6	—	—	—	—	—
B7	0.8	TN	694	I	—	Driver Door Lock Actuator Unlock Control	B7	0.8	TN	694	VII	—
B8	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B8	0.8	GY	295	VII	—
B9 - B11	—	—	—	—	—	Not Occupied	B9 - B11	—	—	—	—	—
B12	0.8	BU	1857	I	—	Left Front Midrange Speaker [+] Control	B12	0.8	BU	1857	VII	—
C1	0.5	PU / WH	6628	II	—	Left Front Side Impact Sensor Low Reference	C1	0.5	PU / WH	6628	IV	—
C2	0.5	WH	2132	II	—	Left Front Side Impact Sensor Signal	C2	0.5	WH	2132	IV	—
C3 - C6	—	—	—	—	—	Not Occupied	C3 - C6	—	—	—	—	—
C7	0.5	BU / WH	1314	II	—	Left Front Turn Signal Lamp Control	C7	0.5	BU / WH	1314	IV	—
C8	0.5	RD / WH	4340	II	—	Battery Positive Voltage	C8	0.5	RD / WH	4340	IV	—
C9 - C11	—	—	—	—	—	Not Occupied	C9 - C11	—	—	—	—	—
C12	0.8	BU	1957	I	—	Left Front Midrange Speaker [-] Control	C12	0.8	BU	1957	VII	—
D1 - D3	—	—	—	—	—	Not Occupied	D1 - D3	—	—	—	—	—
D4	3	TN	167	III	—	Right Front Window Down Switch Main Control Signal	D4	3	TN	167	VI	—
D5	3	BU	166	III	—	Right Front Window Up Switch Main Control Signal	D5	3	BU	166	VI	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D6	3	GN	1001	III	—	Retained Accessory Power Ignition Voltage	D6	3	GN	1001	VI	—
D7	0.35	BN / WH	1498	II	—	Right Outside Rearview Mirror Motor Up Control	D7	0.5	BN / WH	1498	IV	—
D8	0.35	OG / WH	881	II	—	Right Outside Rearview Mirror Motor Right Control	D8	0.5	OG / WH	881	IV	—

X501 Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver (ASF)



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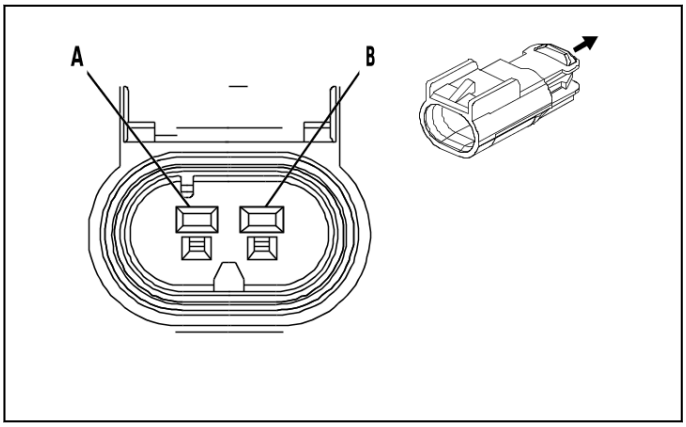


681875

Connector Part Information
- Harness Type: Airbag Wiring Harness
- OEM Connector: 13510085
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 150 GT Series, Sealed(BK)

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Driver
- OEM Connector: 13510099
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 150 GT Series, Sealed(BK)

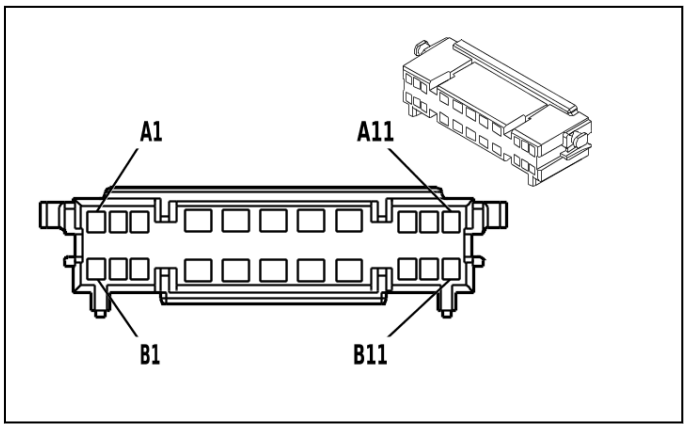
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

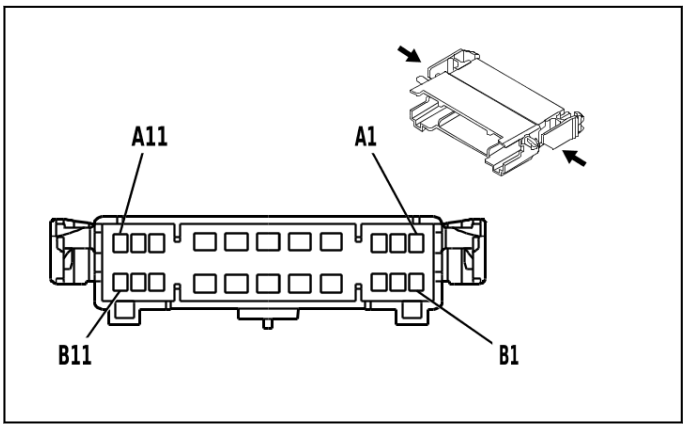
X501 Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver (ASF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PU / WH	6628	I	—	Left Front Side Impact Sensor Low Reference	A	0.5	PU / WH	6628	II	—
B	0.5	WH	2132	I	—	Left Front Side Impact Sensor Signal	B	0.5	WH	2132	II	—

X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness



524205



524211

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 15326063
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way F 150, 280 GT Series, Sealed(GY)

Connector Part Information
- Harness Type: Body Wiring Harness
- OEM Connector: 15326064
- Service Connector: Service by Harness - See Part Catalog
- Description: 22-Way M 150, 280 GT Series, Sealed(GY)

Terminal Part Information

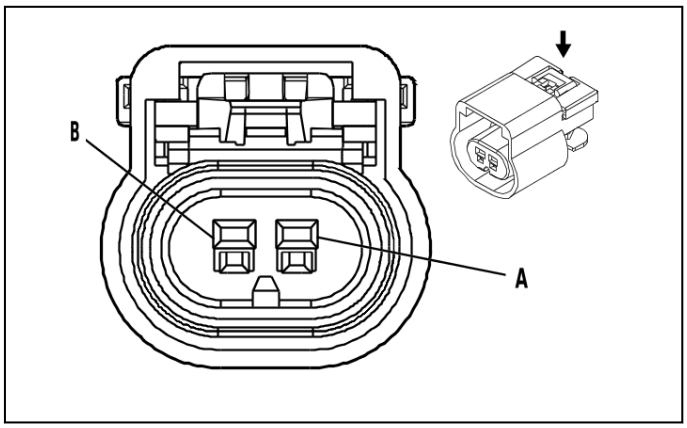
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required
IV	13575500	J-35616-3 (GY)	J-38125-215A
V	13575502	J-35616-3 (GY)	J-38125-215A
VI	13575505	J-35616-5 (PU)	J-38125-215A
VII	13575507	J-35616-5 (PU)	J-38125-215A
VIII	13575510	J-35616-5 (PU)	J-38125-215A

X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	I	—	Right Front Midrange Speaker [+] Control	A1	0.8	OG	1853	V	—
A2	0.8	TN	294	I	—	Door Lock Actuator Unlock Control	A2	0.8	TN	294	V	—
A3	0.8	OG	2267	I	—	Outside Rearview Mirror Heater Control	A3	0.8	OG	2267	V	—
A4	3	BU	166	III	—	Right Front Window Up Switch Main Control Signal	A4	3	BU	166	VIII	—
A5	0.8	BK	1850	III	—	Ground	A5	0.8	BK	1850	VII	—

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A6	0.35	BN / WH	1498	III	—	Right Outside Rearview Mirror Motor Up Control	A6	0.5	BN / WH	1498	VI	—
A7	0.35	OG / WH	881	III	—	Right Outside Rearview Mirror Motor Right Control	A7	0.5	OG / WH	881	VI	—
A8	0.35	TN / WH	746	III	—	Right Front Door Ajar Switch Signal	A8	0.35	TN / WH	746	VI	—
A9	0.35	BK	1850	II	—	Ground	A9	0.35	BK	1850	IV	—
A10	0.5	GN	2134	II	—	Right Front Side Impact Sensor Signal	A10	0.5	GN	2134	IV	—
A11	0.35	BU	244	II	—	Passenger Door Lock Switch Lock Control	A11	0.35	BU	244	IV	—
B1	0.8	GN	1953	I	—	Right Front Midrange Speaker [-] Control	B1	0.8	GN	1953	V	—
B2	0.8	GY	295	I	—	Door Lock Actuator Lock Control	B2	0.8	GY	295	V	—
B3	0.5	BU / WH	1315	II	—	Right Front Turn Signal Lamp Control	B3	0.5	BU / WH	1315	IV	—
B4	3	TN	167	III	—	Right Front Window Down Switch Main Control Signal	B4	3	TN	167	VIII	—
B5	3	GN	1001	III	—	Retained Accessory Power Ignition Voltage	B5	3	GN	1001	VIII	—
B6	0.35	BN / WH	230	III	—	Instrument Panel Lamp Dimming Control	B6	0.35	BN / WH	230	VI	—
B7	0.35	PU / WH	889	III	—	Right Outside Rearview Mirror Motor Down Control	B7	0.5	PU / WH	889	VI	—
B8	0.35	GN	1177	III	—	Right Front Door Open Switch Signal	B8	0.35	GN	1177	VI	—
B9	—	—	—	—	—	Not Occupied	B9	—	—	—	—	—
B10	0.5	WH / BK	6629	II	—	Right Front Side Impact Sensor Low Reference	B10	0.5	WH / BK	6629	IV	—
B11	0.35	BU	245	II	—	Passenger Door Lock Switch Unlock Control	B11	0.35	BU	245	IV	—

X601 Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger (ASF)



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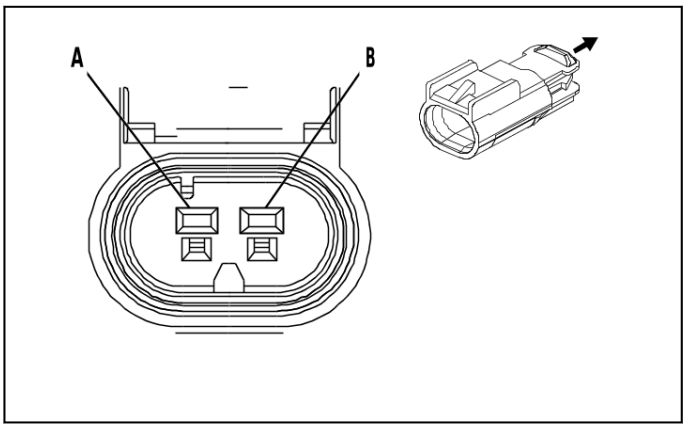


681875

Connector Part Information
- Harness Type: Side Impact Sensor - Right Front Jumper Wiring Harness
- OEM Connector: Not Available
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F

Connector Part Information
- Harness Type: Front Side Door Door Wiring Harness - Passenger
- OEM Connector: 13510099
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 150 GT Series, Sealed(BK)

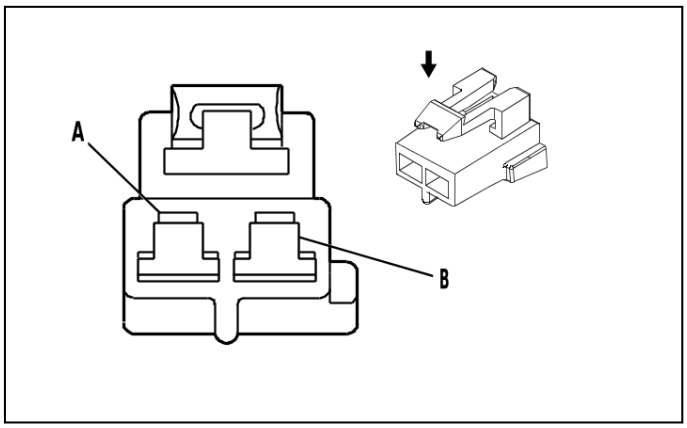
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X601 Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger (ASF)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	WH / BK	6629	I	—	Right Front Side Impact Sensor Low Reference	A	0.5	WH / BK	6629	II	—
B	0.5	GN	2134	I	—	Right Front Side Impact Sensor Signal	B	0.5	GN	2134	II	—

X901 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left (C49)



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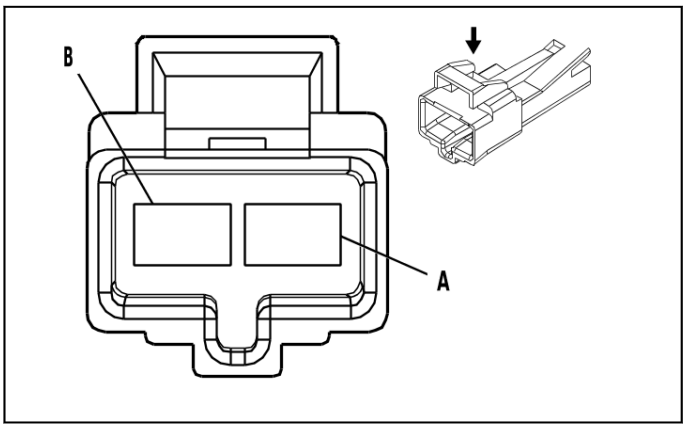


38284

Connector Part Information
- Harness Type: Rear Window Defogger Wiring Harness
- OEM Connector: 12064749
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 480 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness - Left
- OEM Connector: 12064750
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 480 Metri-Pack Series(BK)

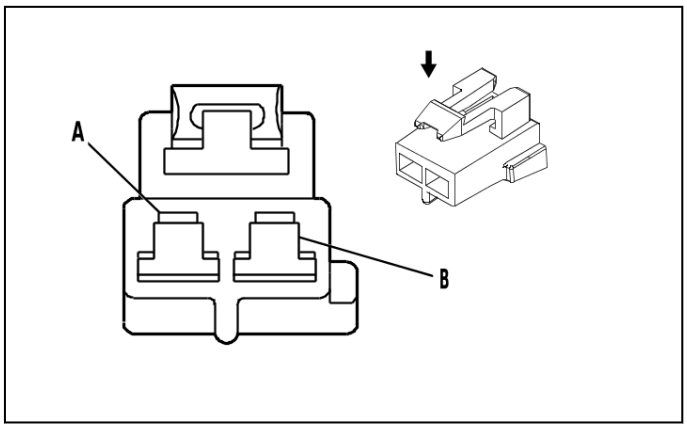
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required

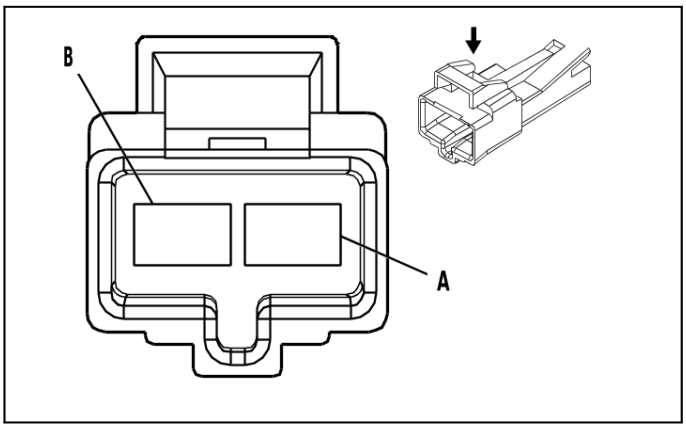
X901 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left (C49)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	II	—
B	3	BK	850	I	—	Ground	B	3	BK	850	II	—

X902 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness (C49)



808706



38284

Connector Part Information
- Harness Type: Rear Window Defogger Wiring Harness
- OEM Connector: 12064749
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 480 Metri-Pack Series(BK)

Connector Part Information
- Harness Type: Rear Door Door Wiring Harness
- OEM Connector: 12064750
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way M 480 Metri-Pack Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-40 (BU)	No Tool Required
II	Not required	J-35616-40 (BU)	No Tool Required

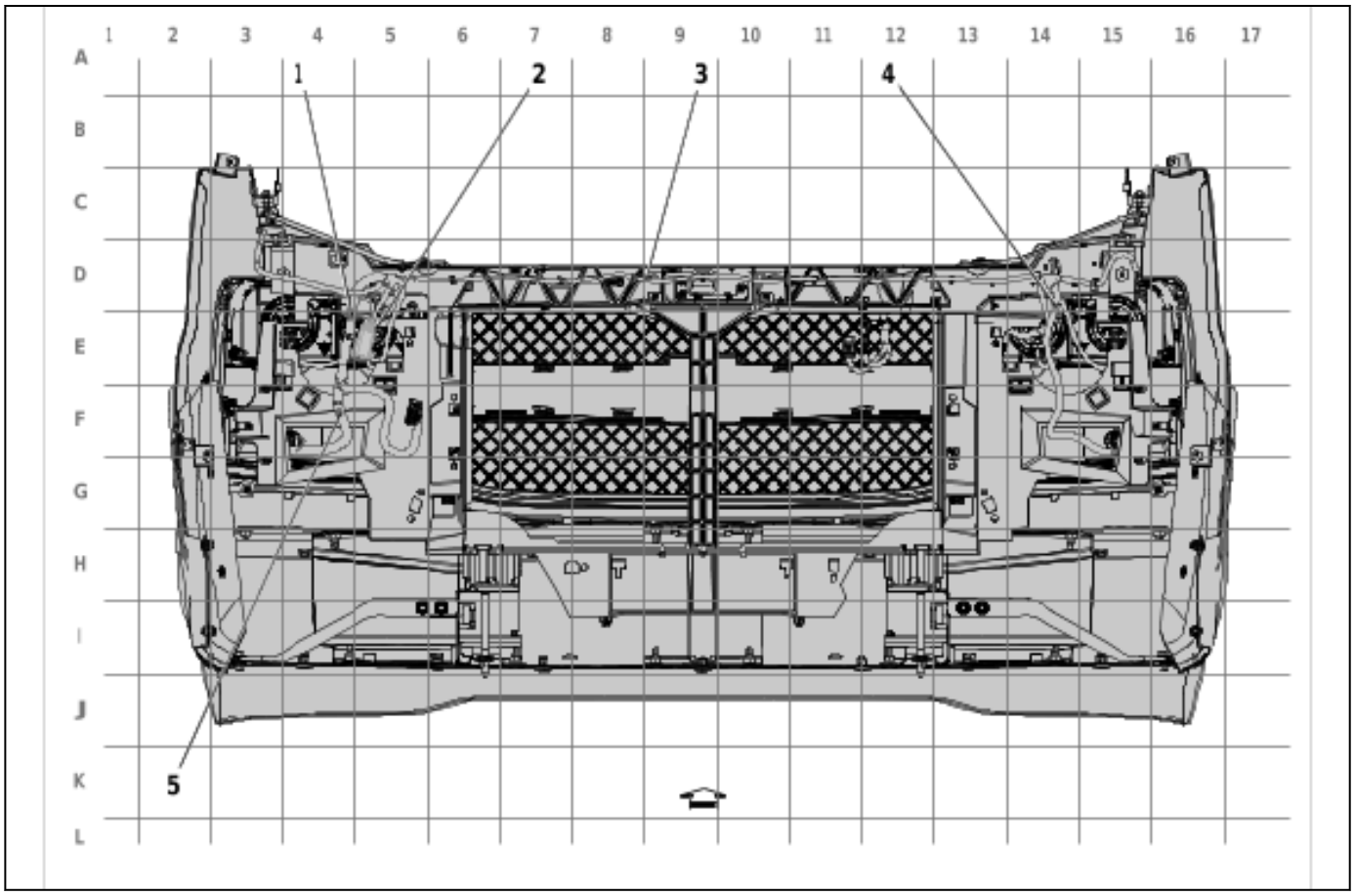
X902 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness (C49)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU	293	I	—	Rear Defogger Grid Control	A	5	PU	293	II	—
B	3	BK	1050	I	—	Ground	B	3	BK	1050	II	—

Electrical Component Locator and Harness Routing Views

Schematic and Routing Diagrams

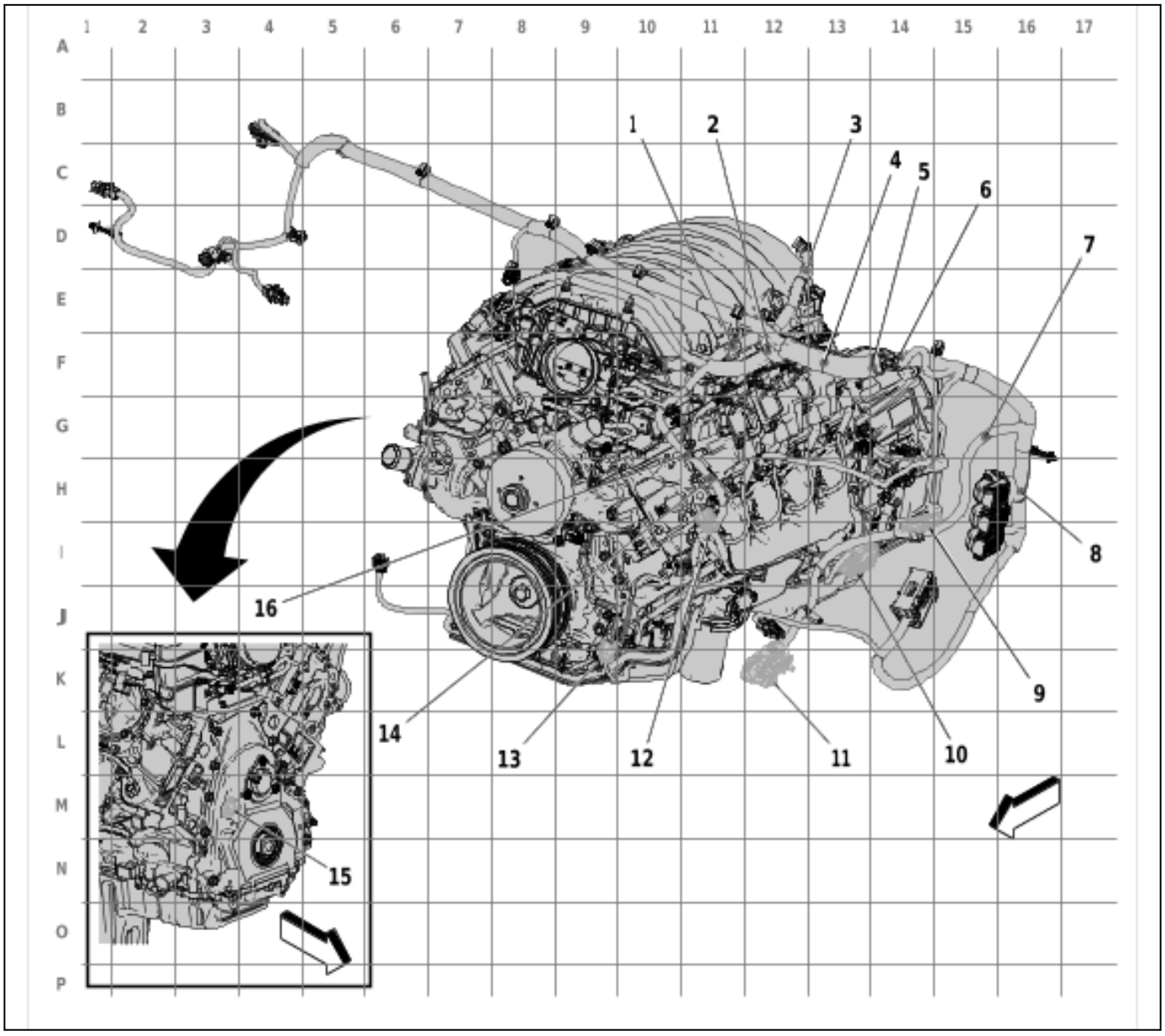
Forward Lamp Harness Routing



6040694

Items
(1) J100 Forward Lamp Wiring Harness
(2) X150 Instrument Panel Wiring Harness to Forward Lamp Wiring Harness
X150 Instrument Panel Wiring Harness to Forward Lamp Wiring Harness
(3) J122 Forward Lamp Wiring Harness
(4) J110 Forward Lamp Wiring Harness
(5) J121 Forward Lamp Wiring Harness

Engine Harness Routing - Front (L8T)

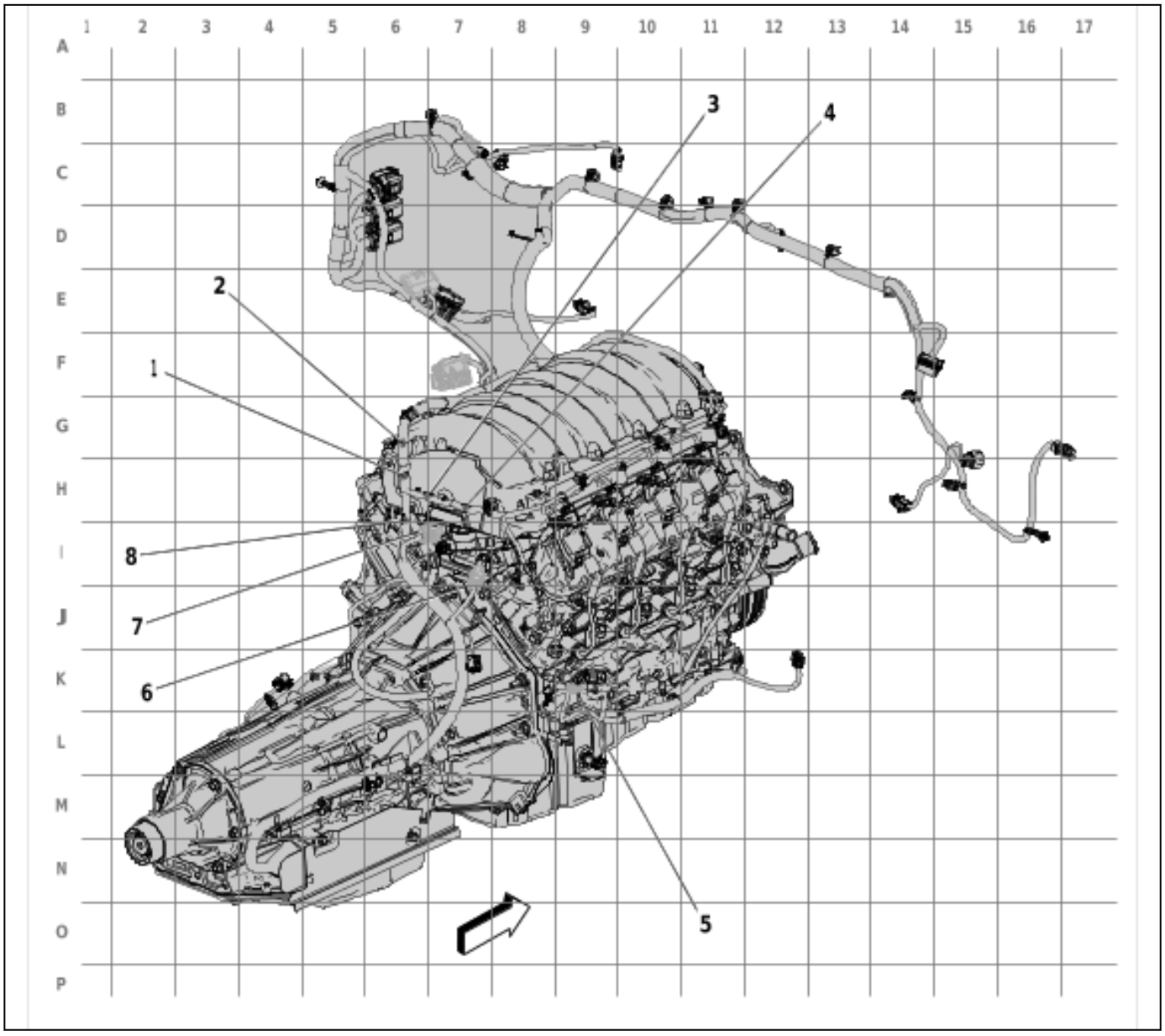


6326445

Items
(1) J101 Engine Wiring Harness
(2) J111 Engine Wiring Harness (L8T)
(3) J181 Ignition Coil Jumper Wiring Harness (L8T)
(4) J182 Left Ignition Coil Wiring Harness
(5) J115 Engine Wiring Harness
(6) J102 Engine Wiring Harness
(7) J107 Engine Wiring Harness
(8) J112 Engine Wiring Harness
(9) X202 Instrument Panel Wiring Harness to Engine Wiring Harness
X202 Instrument Panel Wiring Harness to Engine Wiring Harness

Items
(10) X101 Engine Wiring Harness to Chassis Wiring Harness
X101 Engine Wiring Harness to Chassis Wiring Harness
(11) X100 Instrument Panel Wiring Harness to Engine Wiring Harness
X100 Instrument Panel Wiring Harness to Engine Wiring Harness
(12) X155 Engine Wiring Harness to Engine Coolant Temperature Sensor Harness (L8T)
X155 Engine Wiring Harness to Engine Coolant Temperature Sensor Harness (L8T)
(13) X130 Engine Wiring Harness to Camshaft Position Sensor Wire
X130 Engine Wiring Harness to Camshaft Position Sensor Wire
(14) J131 Engine Wiring Harness
(15) X135 Camshaft Position Sensor Wire to Oil Pump Flow Control Solenoid Valve Wire (L8T)
X135 Camshaft Position Sensor Wire to Oil Pump Flow Control Solenoid Valve Wire (L8T)
(16) J130 Engine Wiring Harness

Engine Harness Routing - Rear (L8T)

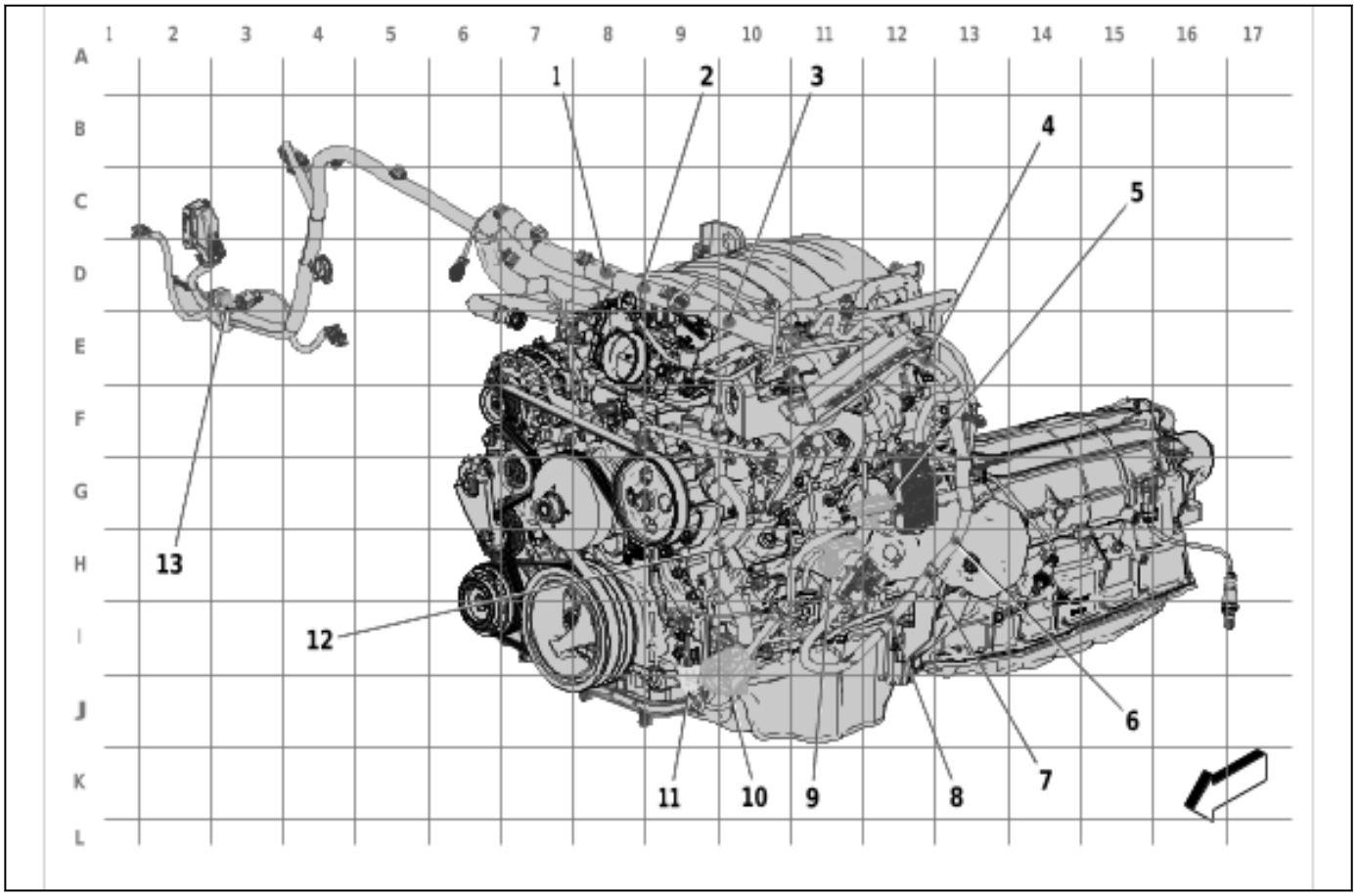


6040696

Items
(1) J143 Engine Wiring Harness
(2) J188 Right Ignition Coil Wiring Harness
(3) J183 Right Ignition Coil Wiring Harness (L8T)
(4) J108 Engine Wiring Harness (L8T)
(5) X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness
(6) X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1/L8T) X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)

Items
(7) X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1/L8T) X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)
(8) J144 Engine Wiring Harness

Engine Harness Routing - Front (LV1)

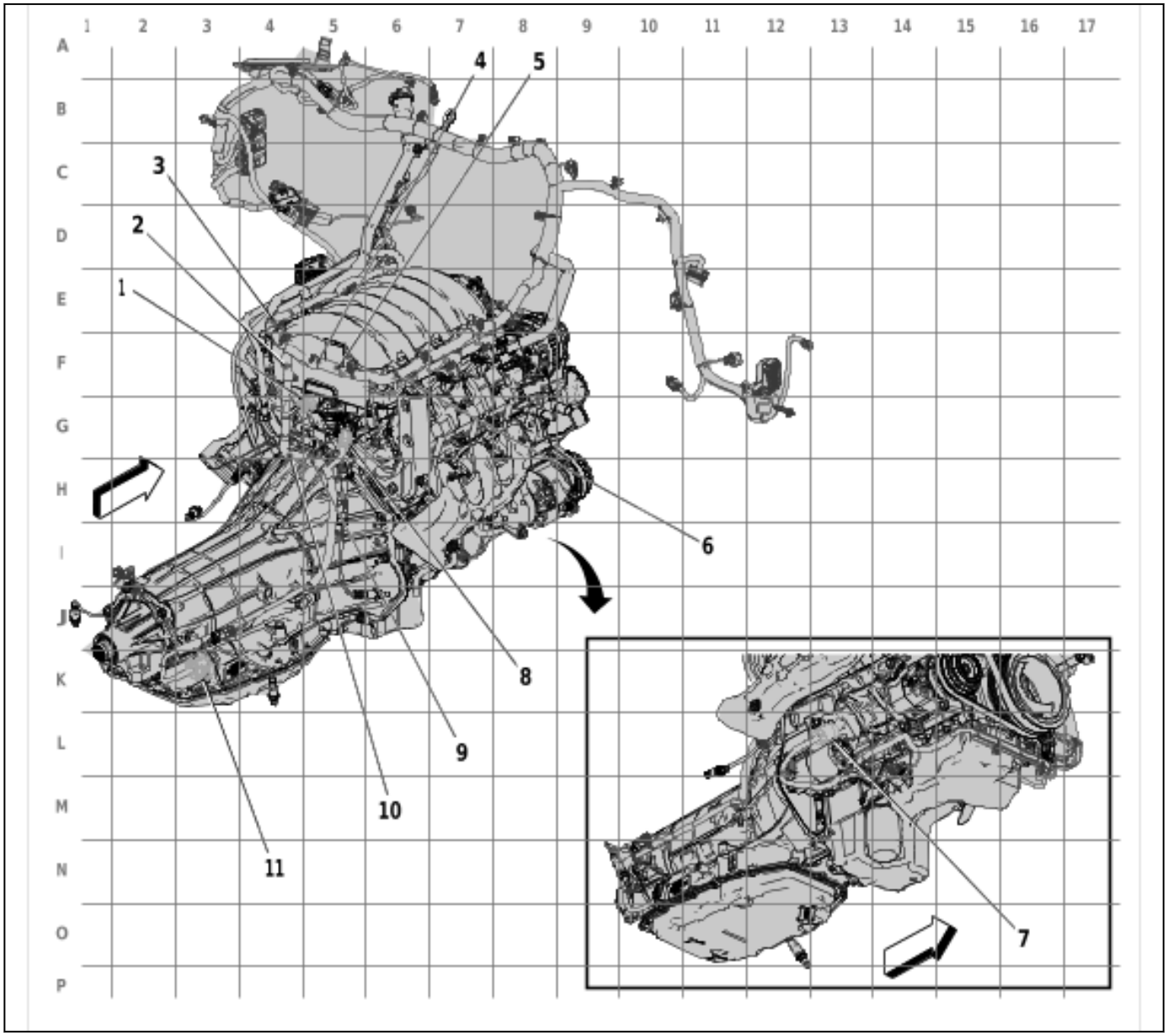


6537601

Items
(1) J188 Right Ignition Coil Wiring Harness
(2) J112 Engine Wiring Harness
(3) J182 Left Ignition Coil Wiring Harness
(4) J115 Engine Wiring Harness
(5) X102 Chassis Wiring Harness to Fuel Tank Wiring Harness X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
(6) J185 Right Ignition Coil Wiring Harness (LV1)
(7) J184 Left Ignition Coil Wiring Harness (LV1)
(8) J107 Engine Wiring Harness
(9) X101 Engine Wiring Harness to Chassis Wiring Harness X101 Engine Wiring Harness to Chassis Wiring Harness

Items
(10) X100 Instrument Panel Wiring Harness to Engine Wiring Harness
X100 Instrument Panel Wiring Harness to Engine Wiring Harness
(11) X130 Engine Wiring Harness to Camshaft Position Sensor Wire
X130 Engine Wiring Harness to Camshaft Position Sensor Wire
(12) J101 Engine Wiring Harness
(13) R6A Terminating Resistor - High Speed Bus
R6A Terminating Resistor - High Speed Bus

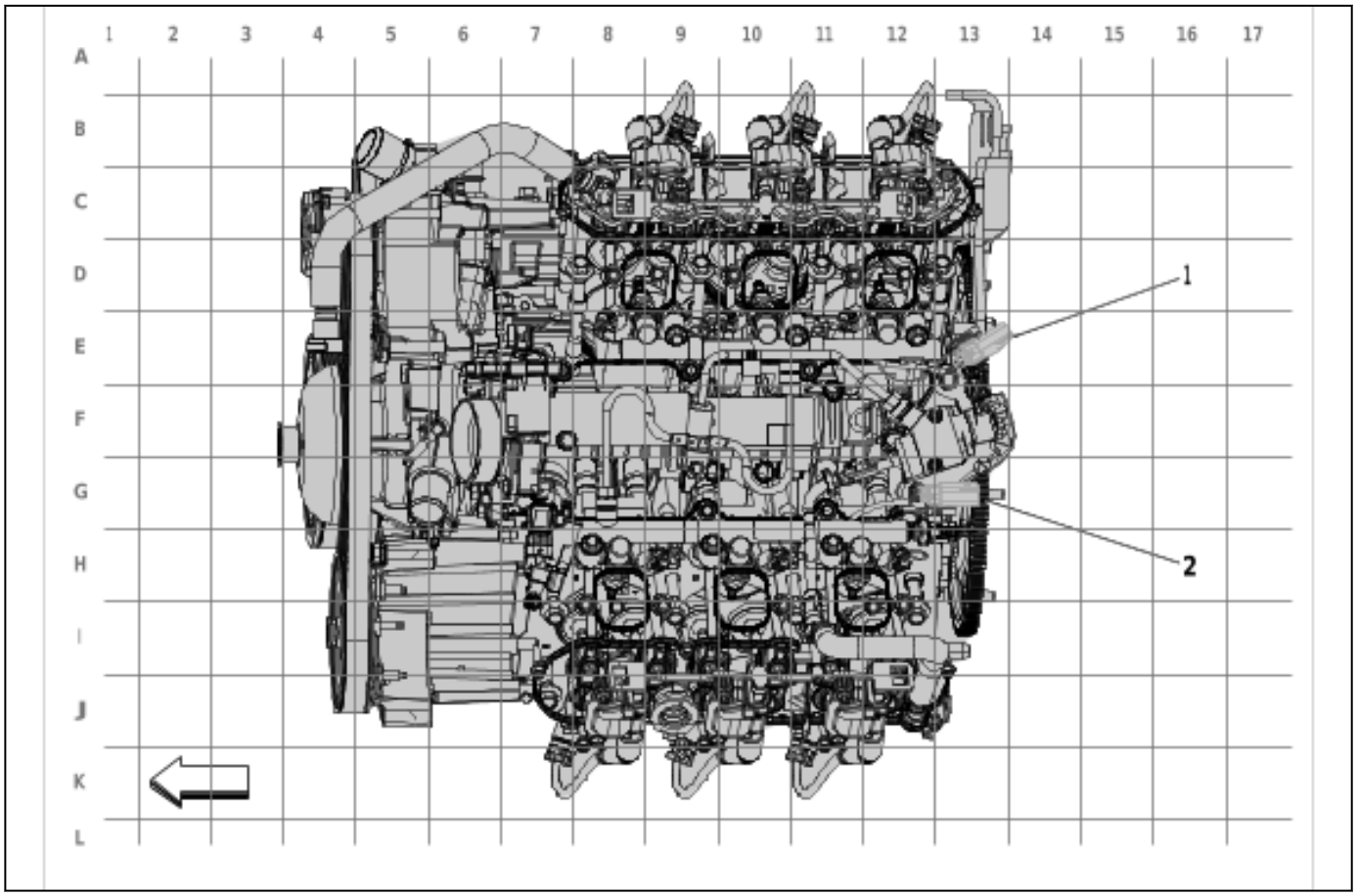
Engine Harness Routing - Rear (LV1)



6003043

Items
(1) X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1/L8T)
X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)
X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)
(2) J143 Engine Wiring Harness
(3) J131 Engine Wiring Harness
(4) J170 Engine Wiring Harness (LV1)
(5) J171 Engine Wiring Harness (LV1)
(6) J102 Engine Wiring Harness
(7) X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness
X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness
(8) X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1/L8T)
X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T)
X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)
(9) J130 Engine Wiring Harness
(10) J144 Engine Wiring Harness
(11) X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1/L8T)
X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T)
X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1)

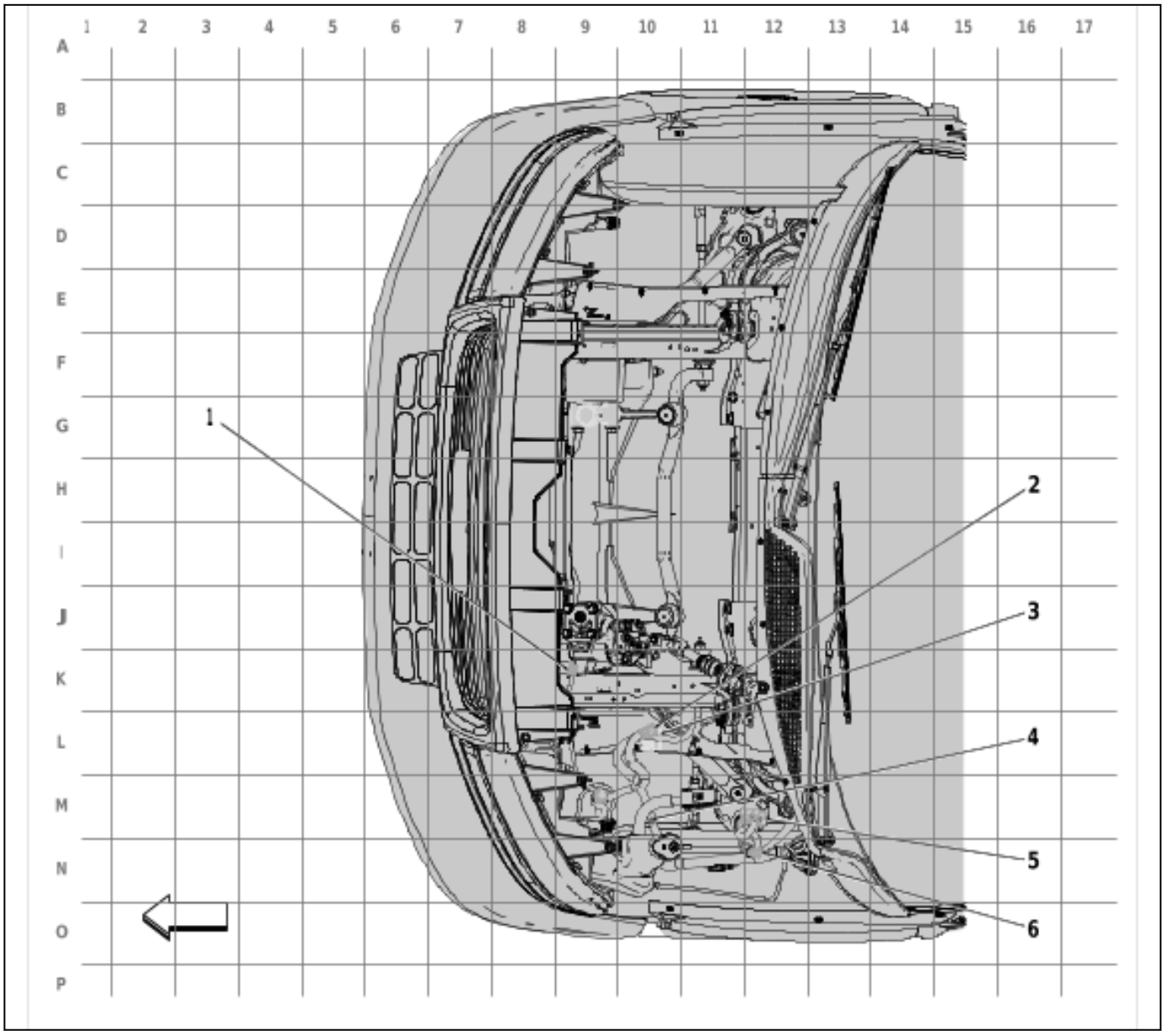
Fuel Injector Harness Routing (LV1)



4861805

Items
(1) X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1/L8T)
X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)
(2) X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1/L8T)
X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)

Instrument Panel Harness Routing - Engine Compartment

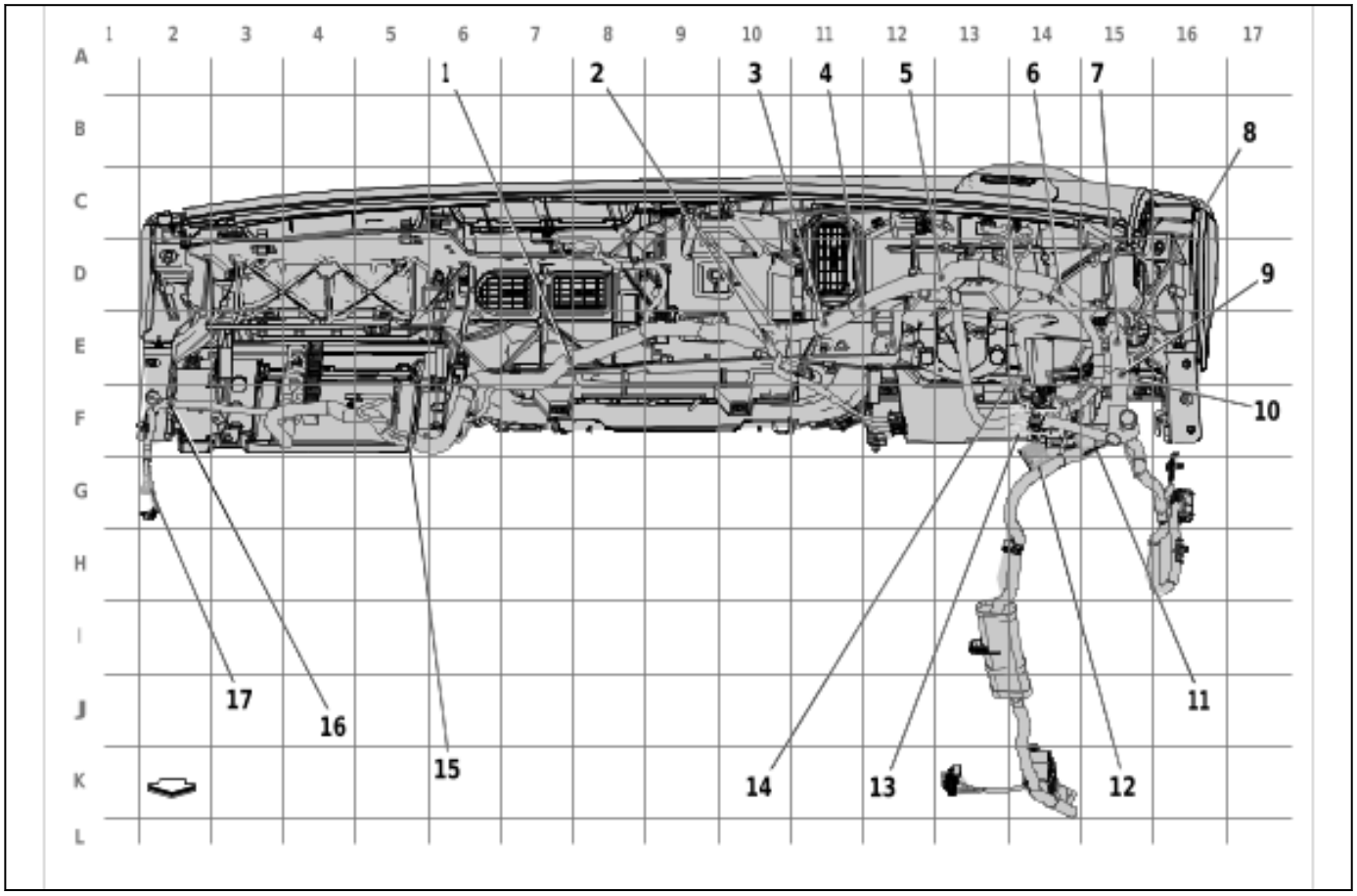


6040698

Items
(1) X104 Instrument Panel Wiring Harness to Front Seat Wiring Harness
X104 Instrument Panel Wiring Harness to Front Seat Wiring Harness
(2) X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
(3) X100 Instrument Panel Wiring Harness to Engine Wiring Harness
X100 Instrument Panel Wiring Harness to Engine Wiring Harness
(4) J211 Instrument Panel (UD7/UFT)

Items
(5) X202 Instrument Panel Wiring Harness to Engine Wiring Harness
X202 Instrument Panel Wiring Harness to Engine Wiring Harness
(6) X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness (UJ1)
X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness (UJ1)

Instrument Panel Harness Routing - Rear of Instrument Panel

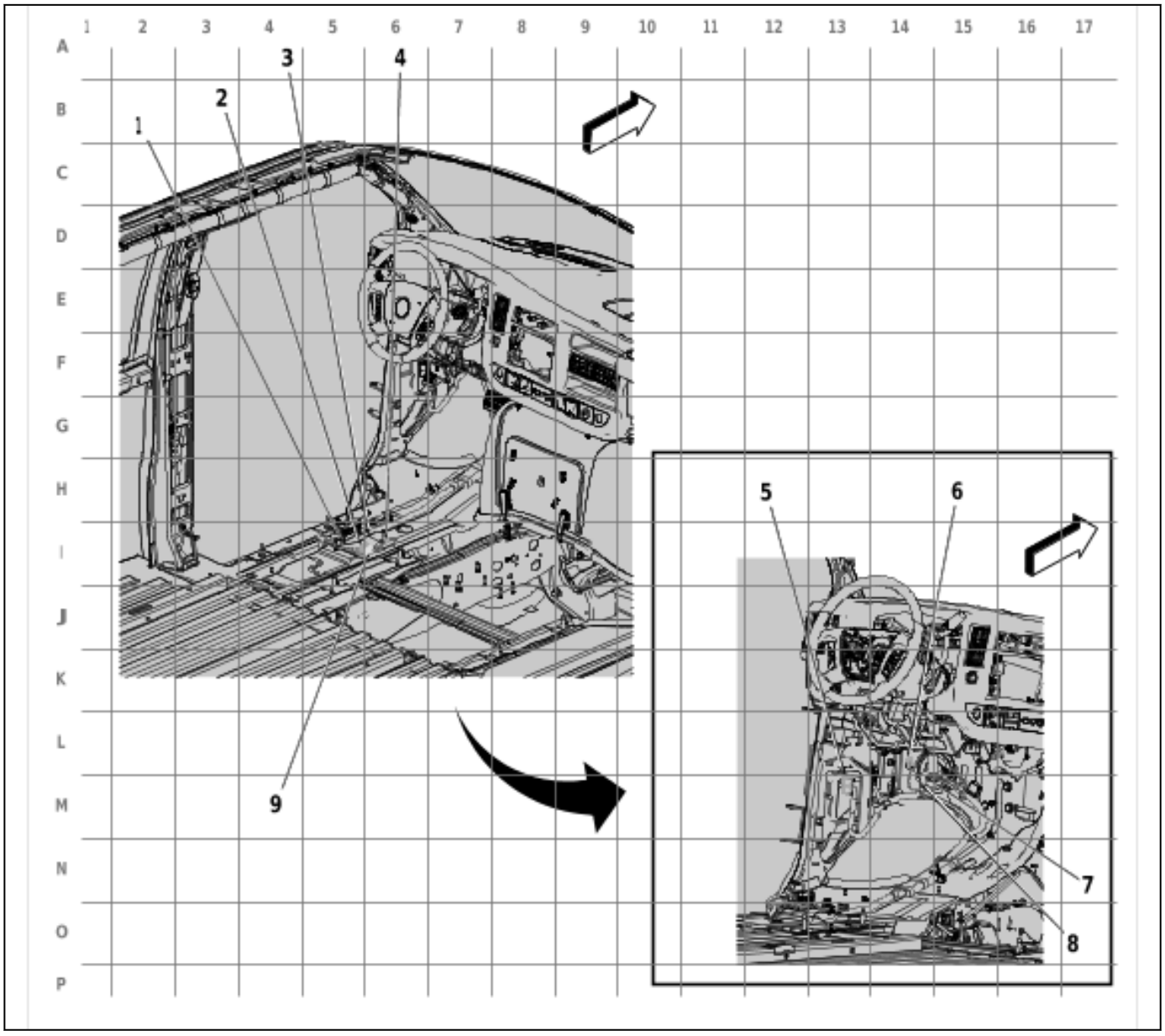


6505750

Items
(1) J241 Instrument Panel
(2) J271 Instrument Panel (U2K/UE1)
(3) J245 Instrument Panel (DE5)
(4) J246 Instrument Panel (DE5)
(5) J207 Instrument Panel
(6) J248 Instrument Panel
(7) J263 Instrument Panel (TP3)
(8) J244 Instrument Panel
(9) J247 Instrument Panel
(10) X206 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness
X206 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness

Items
(11) JX200 Instrument Panel Wiring Harness
JX200 Splice Pack
(12) JX250 Instrument Panel Wiring Harness
JX250 Splice Pack
(13) X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness
X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness
(14) X225 Accelerator Control Wiring Harness to Instrument Panel Wiring Harness
X225 Accelerator Control Wiring Harness to Instrument Panel Wiring Harness
(15) J250 Instrument Panel
(16) J249 Instrument Panel
(17) X221 Instrument Panel Wiring Harness to Antenna Wiring Harness
X221 Instrument Panel Wiring Harness to Antenna Wiring Harness

Instrument Panel Harness Routing - Driver Side

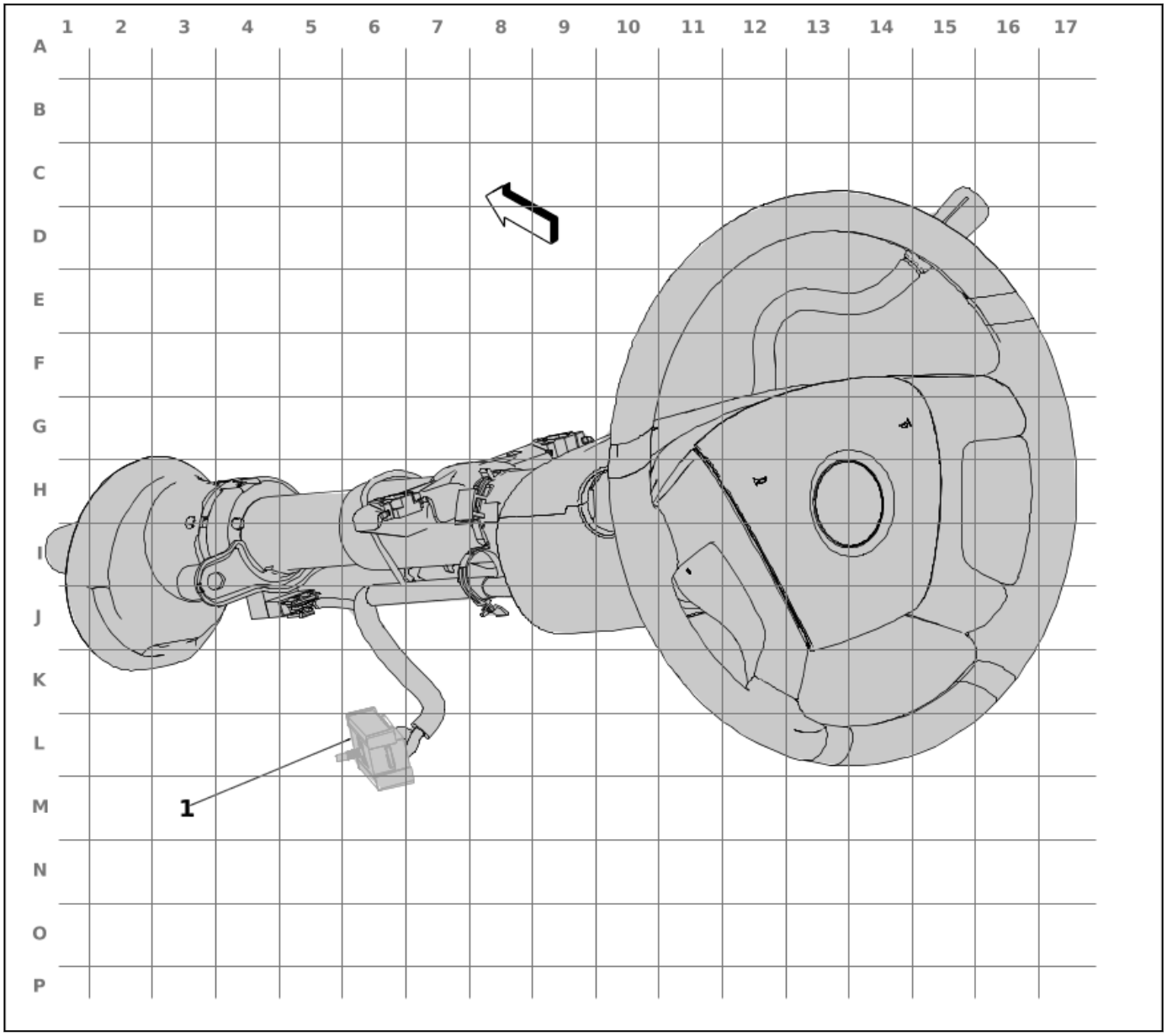


6040701

Items
(1) J223 Instrument Panel (UVC)
(2) X331 Instrument Panel Wiring Harness to Body Wiring Harness X331 Instrument Panel Wiring Harness to Body Wiring Harness
(3) J280 Instrument Panel (Cutaway)
(4) X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC) X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
(5) X318 Instrument Panel Wiring Harness to Body Wiring Harness X318 Instrument Panel Wiring Harness to Body Wiring Harness

Items
(6) X220 Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness
X220 Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness
(7) W8 Blunt Cut - Trailer Provision (NE7)
(8) J201 Instrument Panel (UFL)
(9) X330 Instrument Panel Wiring Harness to Body Wiring Harness
X330 Instrument Panel Wiring Harness to Body Wiring Harness

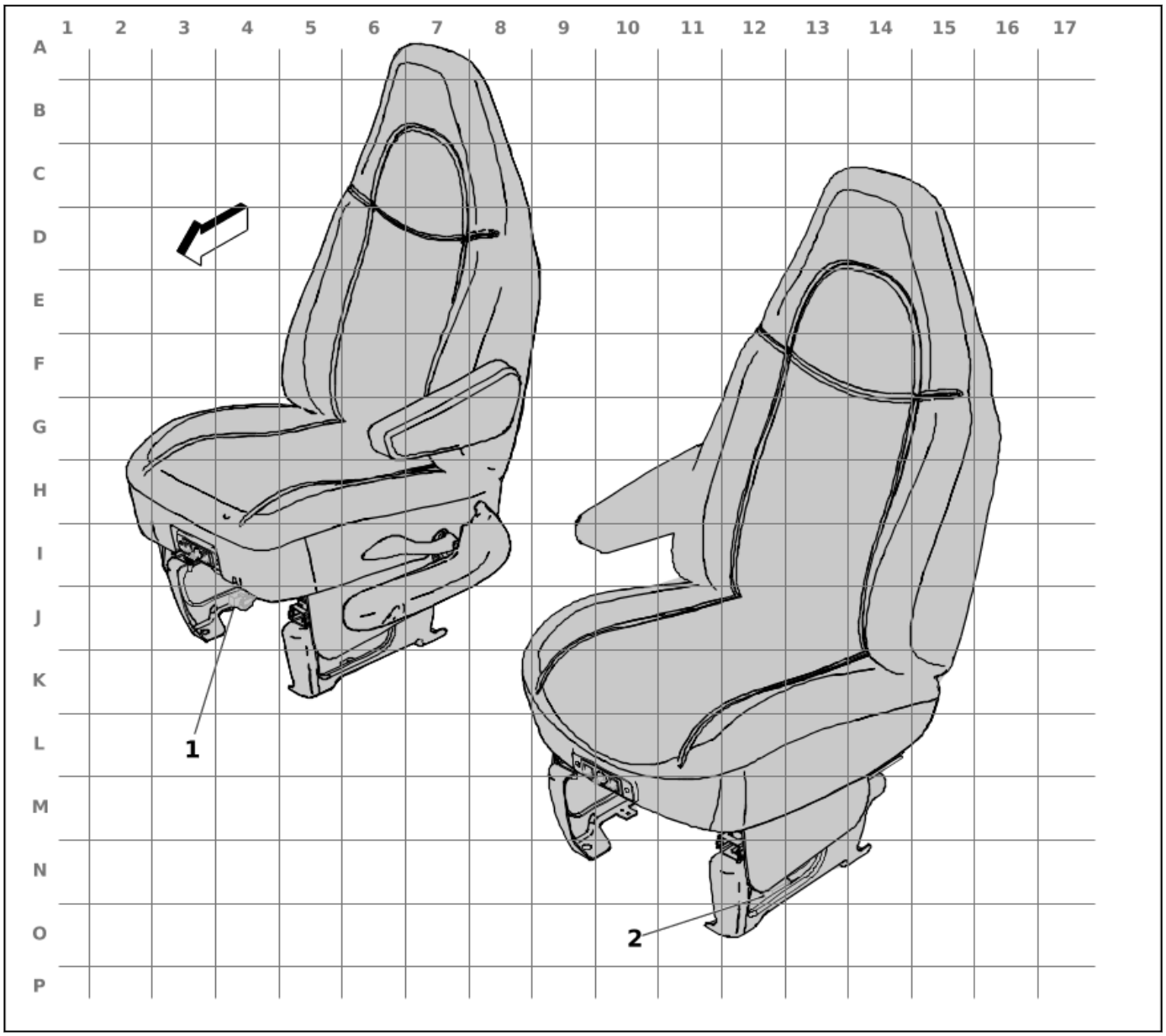
Steering Column Harness Routing



4004323

Items
(1) X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness
X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness

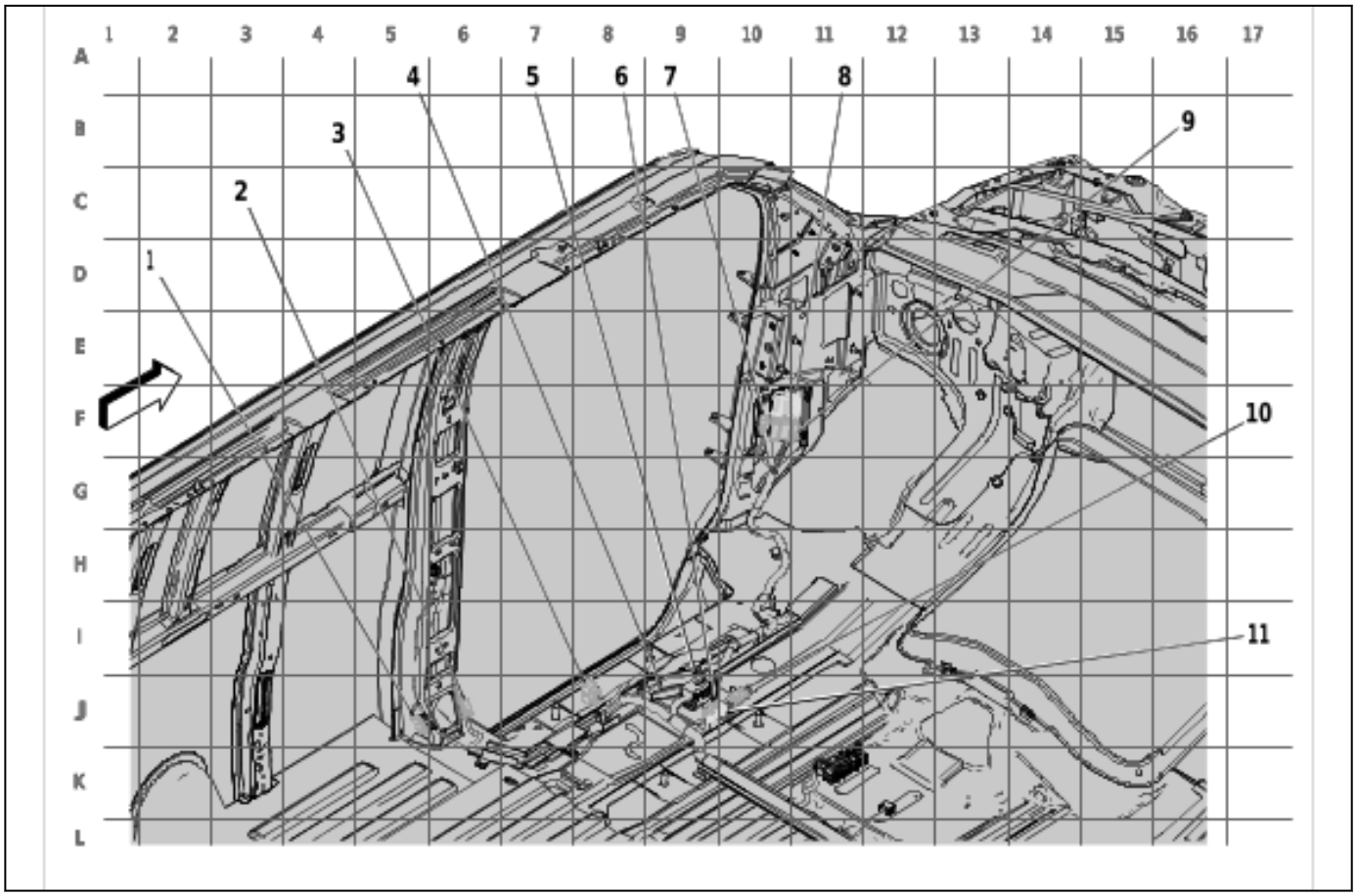
Driver Seat Harness Routing and Front Passenger Seat Harness Routing



2830793

Items
(1) X306 Body Wiring Harness to Seat Wiring Harness - Passenger
X306 Body Wiring Harness to Seat Wiring Harness - Passenger
(2) X307 Body Wiring Harness to Seat Wiring Harness - Driver
X307 Body Wiring Harness to Seat Wiring Harness - Driver

Body Harness Routing - Left Front Passenger Compartment - Passenger

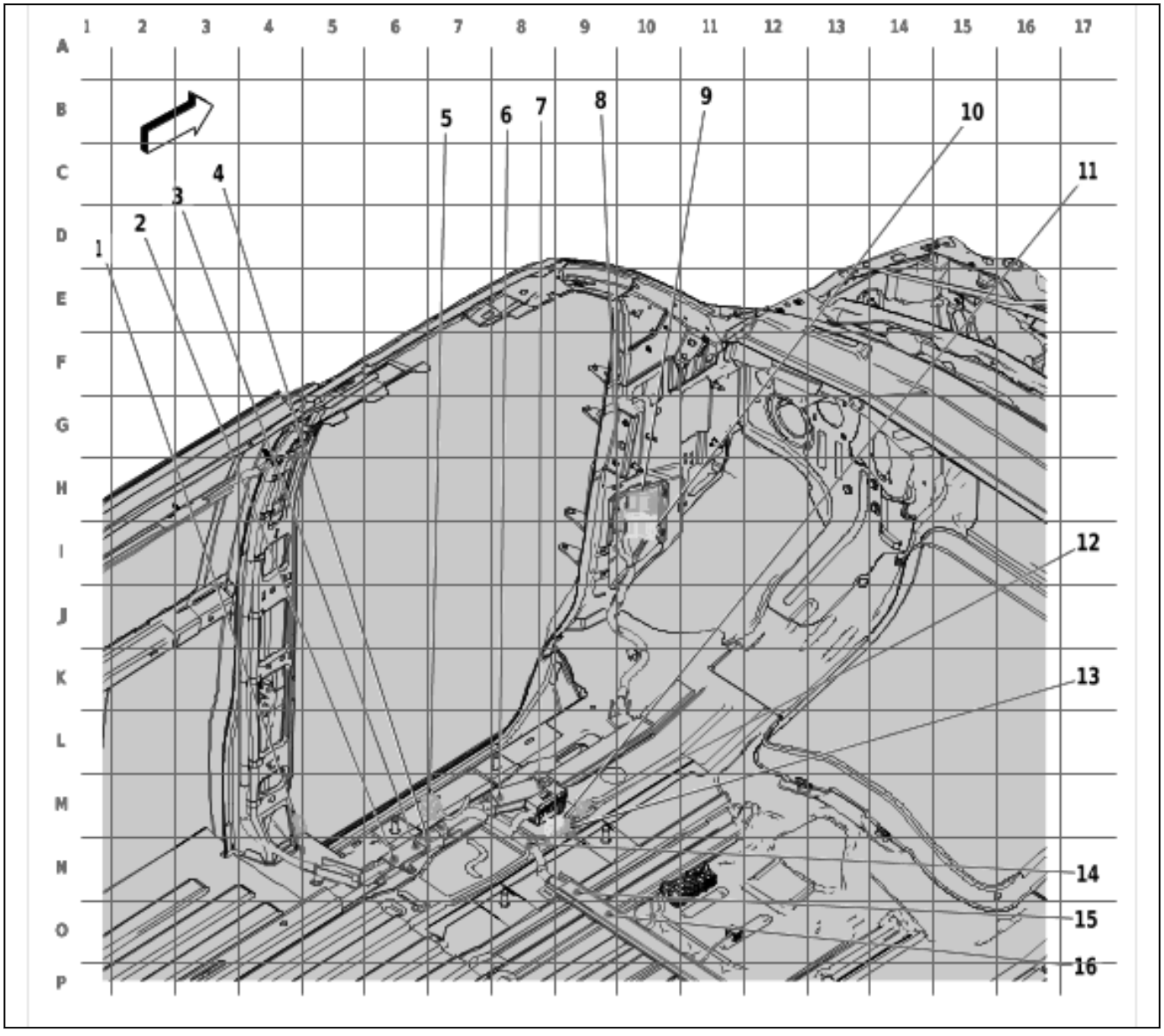


6193603

Items
(1) X323 Airbag Wiring Harness to Body Wiring Harness (ASF)
X323 Airbag Wiring Harness to Body Wiring Harness (ASF)
(2) JX347 Body Wiring Harness
JX347 Splice Pack
(3) X307 Body Wiring Harness to Seat Wiring Harness - Driver
X307 Body Wiring Harness to Seat Wiring Harness - Driver
(4) J357 Body Wiring Harness
(5) J356 Body Wiring Harness
(6) X331 Instrument Panel Wiring Harness to Body Wiring Harness
X331 Instrument Panel Wiring Harness to Body Wiring Harness
(7) X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC/C69/C36)
X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC / C69 / C36)
(8) X318 Instrument Panel Wiring Harness to Body Wiring Harness
X318 Instrument Panel Wiring Harness to Body Wiring Harness
(9) X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness

Items
(10) X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
(11) X330 Instrument Panel Wiring Harness to Body Wiring Harness
X330 Instrument Panel Wiring Harness to Body Wiring Harness

Body Harness Routing - Left Front Passenger Compartment - Cargo

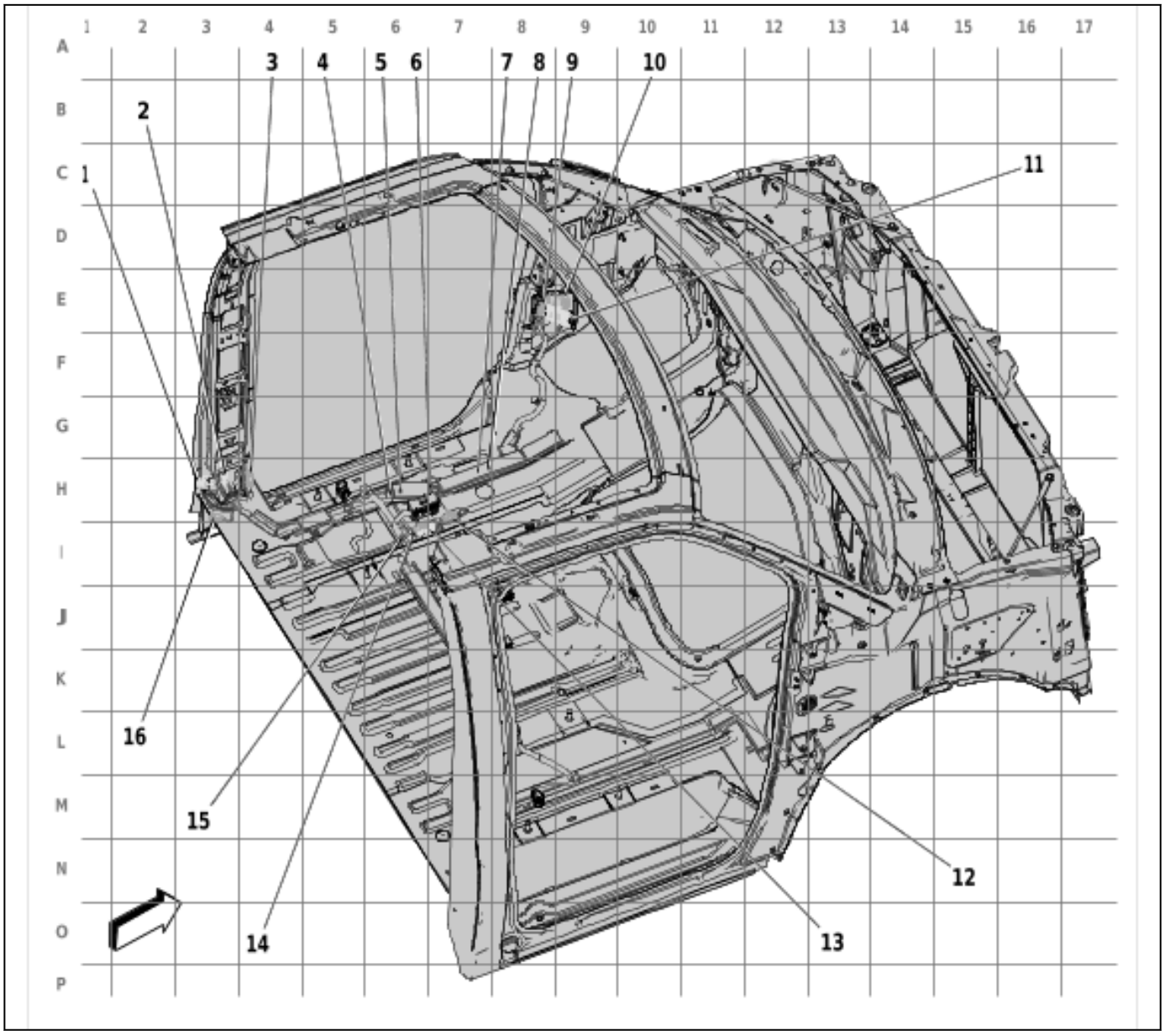


6193604

Items
(1) JX347 Body Wiring Harness
JX347 Splice Pack
(2) J308 Body Wiring Harness (C69)
(3) J310 Body Wiring Harness (C69)

Items
(4) J311 Body Wiring Harness (C69)
(5) X307 Body Wiring Harness to Seat Wiring Harness - Driver
X307 Body Wiring Harness to Seat Wiring Harness - Driver
(6) J357 Body Wiring Harness
(7) J356 Body Wiring Harness
(8) X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC/C69/C36)
X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC / C69 / C36)
(9) X318 Instrument Panel Wiring Harness to Body Wiring Harness
X318 Instrument Panel Wiring Harness to Body Wiring Harness
(10) X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
(11) X331 Instrument Panel Wiring Harness to Body Wiring Harness
X331 Instrument Panel Wiring Harness to Body Wiring Harness
(12) X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
(13) X330 Instrument Panel Wiring Harness to Body Wiring Harness
X330 Instrument Panel Wiring Harness to Body Wiring Harness
(14) J334 Body Wiring Harness (UVC)
(15) J322 Body Wiring Harness (Cargo/Passenger + AU3)
(16) J323 Body Wiring Harness (Cargo/Passenger + AU3)

Body Harness Routing - Left Front Passenger Compartment - Cutaway

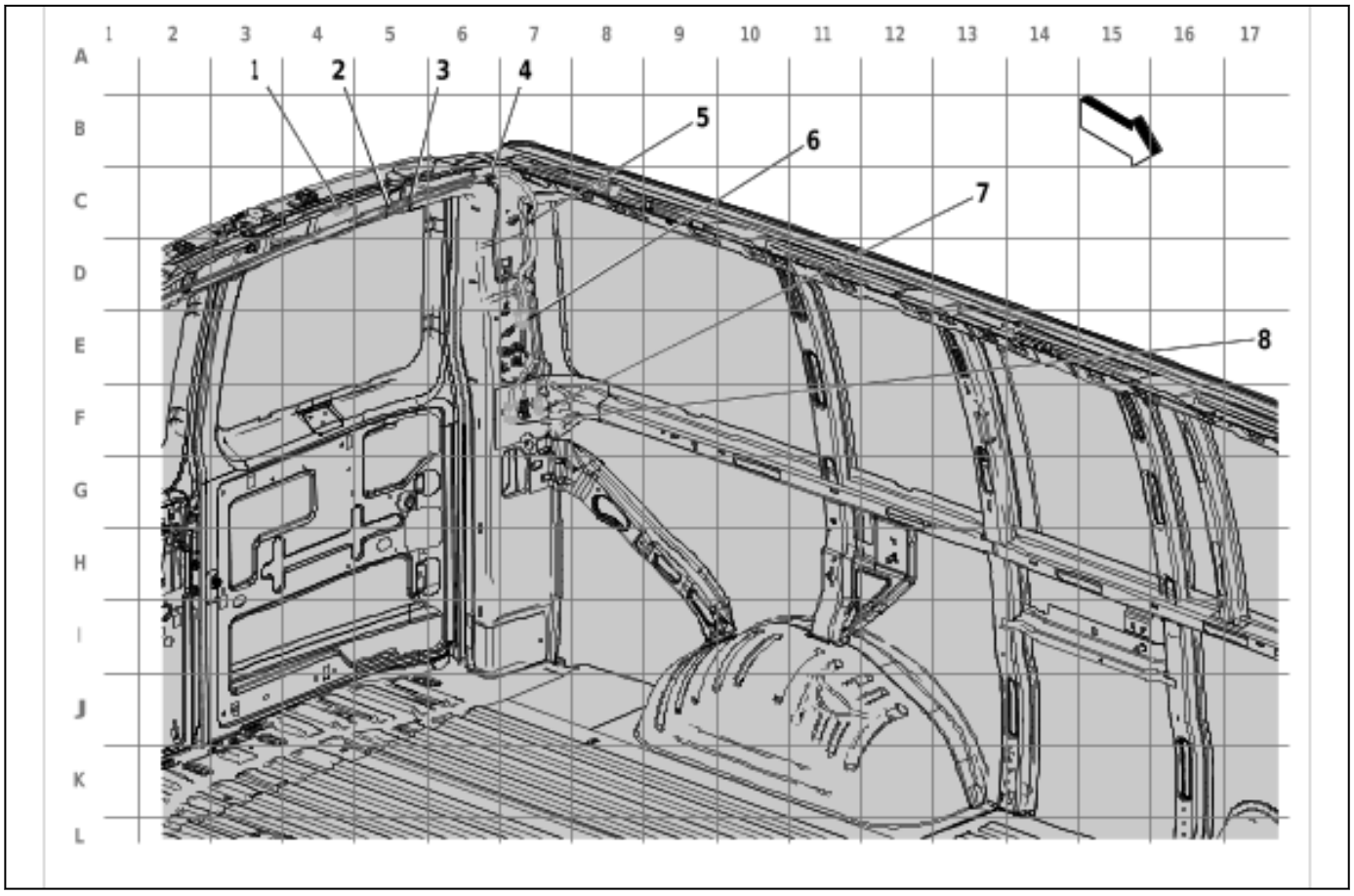


6596255

Items
(1) W22 Blunt Cut - Rear Speaker Provision (Cutaway + YF1)
(2) X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36/C69)
X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36 / C69)
(3) JX347 Body Wiring Harness
JX347 Splice Pack
(4) J311 Body Wiring Harness (C69)
(5) J310 Body Wiring Harness (C69)
(6) J308 Body Wiring Harness (C69)
(7) J357 Body Wiring Harness
(8) J355 Front Headliner Wiring Harness (C69)

Items
(9) X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC/C69/C36)
X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC / C69 / C36)
(10) X318 Instrument Panel Wiring Harness to Body Wiring Harness
X318 Instrument Panel Wiring Harness to Body Wiring Harness
(11) X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
(12) X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
(13) X330 Instrument Panel Wiring Harness to Body Wiring Harness
X330 Instrument Panel Wiring Harness to Body Wiring Harness
(14) X331 Instrument Panel Wiring Harness to Body Wiring Harness
X331 Instrument Panel Wiring Harness to Body Wiring Harness
(15) J334 Body Wiring Harness (UVC)
(16) X403 Rear Door Door Wiring Harness to Body Wiring Harness ((Cutaway)/(Cargo/Passenger))
X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway) X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)

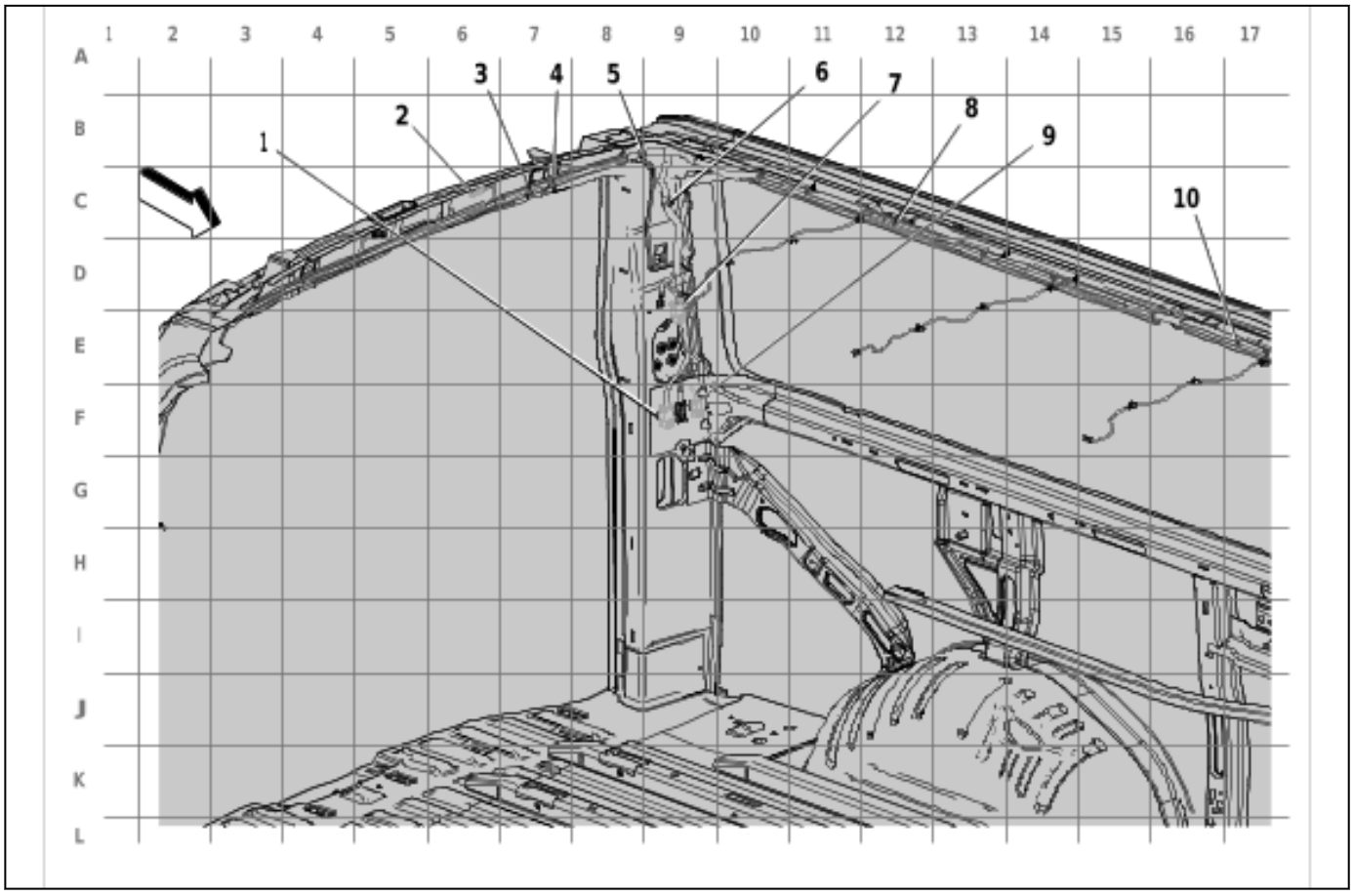
Body Harness Routing - Left Rear Passenger Compartment - Passenger



6594015

Items
(1) X419 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness (Passenger/Cargo)
X419 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
(2) J452 Body Wiring Harness
(3) J453 Body Wiring Harness
(4) J410 Body Wiring Harness (Cargo/Passenger)
(5) J401 Body Wiring Harness (C36/C49/C69)
(6) X410 Tail Lamp Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X410 Tail Lamp Wiring Harness to Body Wiring Harness
(7) X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36/C69)
X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36 / C69)
(8) X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness (Passenger/Cargo)
X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness

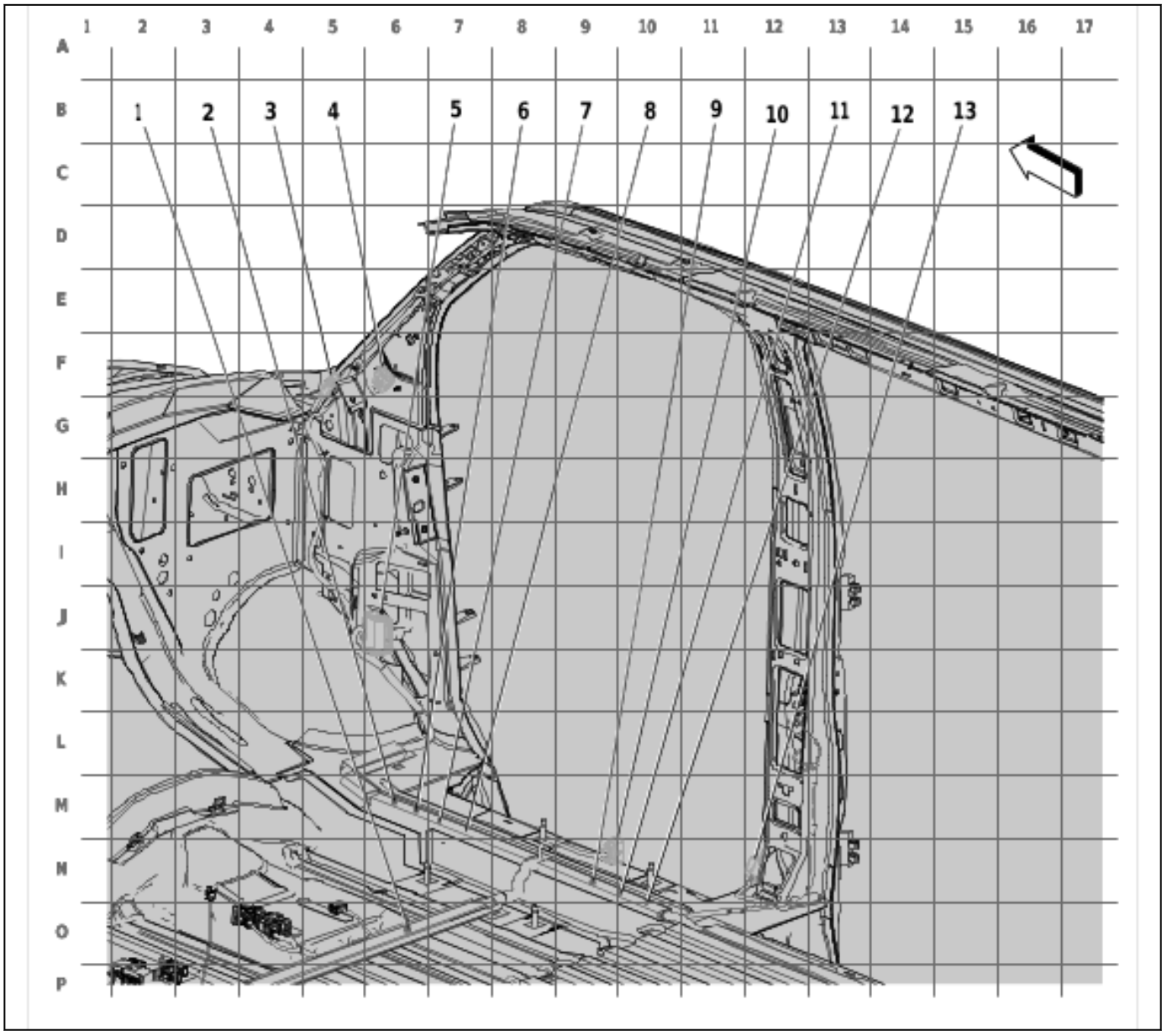
Body Harness Routing - Left Rear Passenger Compartment - Cargo



6594016

Items
(1) X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness (Passenger/Cargo)
X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness
(2) X419 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness (Passenger/Cargo)
X419 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
(3) J453 Body Wiring Harness
(4) J452 Body Wiring Harness
(5) J410 Body Wiring Harness (Cargo/Passenger)
(6) J401 Body Wiring Harness (C36/C49/C69)
(7) X410 Tail Lamp Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X410 Tail Lamp Wiring Harness to Body Wiring Harness
(8) J375 Body Wiring Harness (Cargo)
(9) X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36/C69)
X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36 / C69)
(10) J374 Body Wiring Harness (Cargo)

Body Harness Routing - Right Front Passenger Compartment

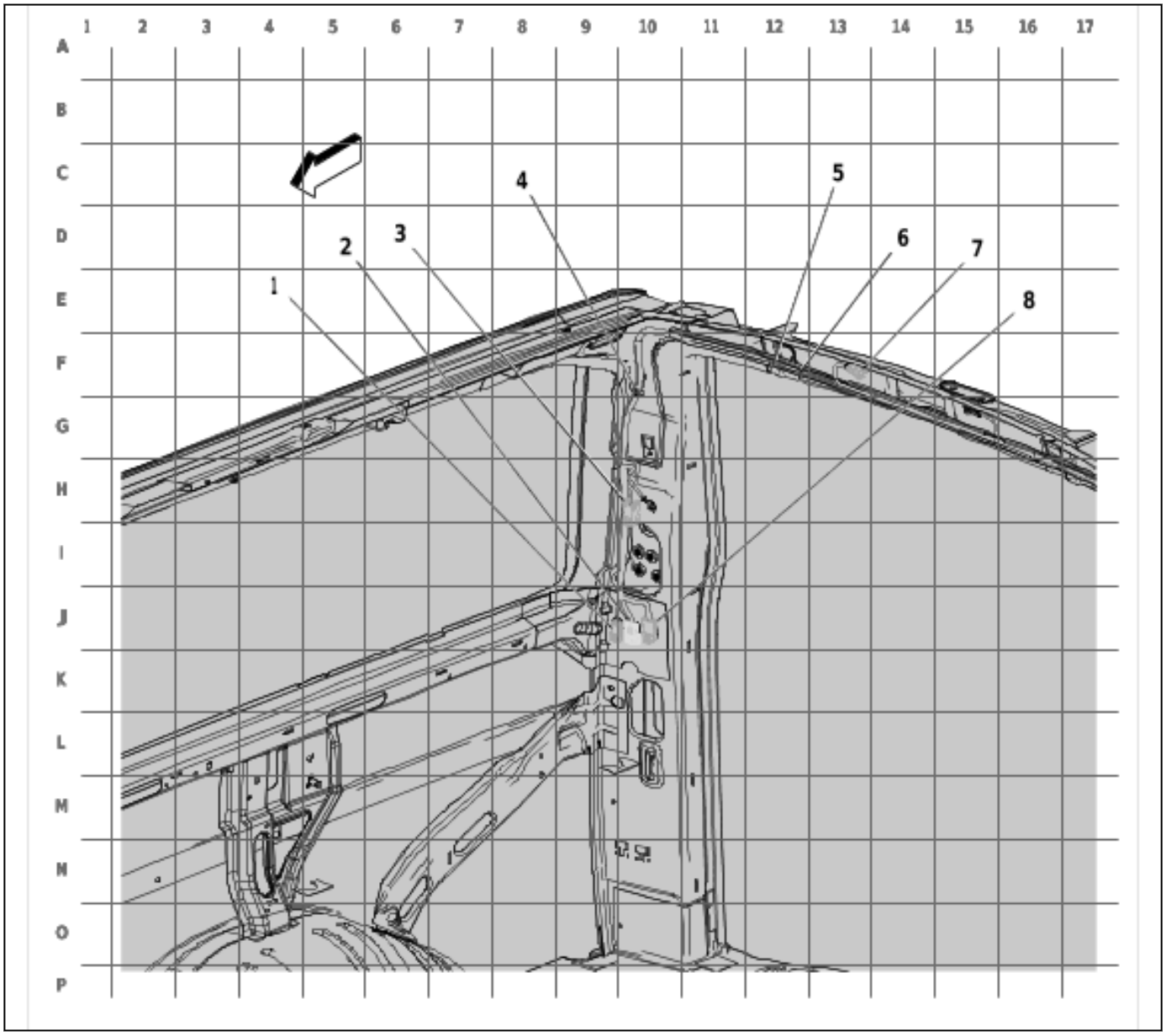


6193607

Items
(1) J359 Body Wiring Harness (U80)
(2) J323 Body Wiring Harness (Cargo/Passenger + AU3)
(3) X205 Roof Console Wiring Harness to Body Wiring Harness
X205 Roof Console Wiring Harness to Body Wiring Harness
(4) X204 Body Wiring Harness to Roof Console Wiring Harness
X204 Body Wiring Harness to Roof Console Wiring Harness
(5) X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness
X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness
(6) J322 Body Wiring Harness (Cargo/Passenger + AU3)
(7) J308 Body Wiring Harness (C69)

Items
(8) J334 Body Wiring Harness (UVC)
(9) J311 Body Wiring Harness (C69)
(10) X306 Body Wiring Harness to Seat Wiring Harness - Passenger X306 Body Wiring Harness to Seat Wiring Harness - Passenger
(11) J310 Body Wiring Harness (C69)
(12) J331 Body Wiring Harness (Passenger)
(13) JX348 Body Wiring Harness JX348 Splice Pack

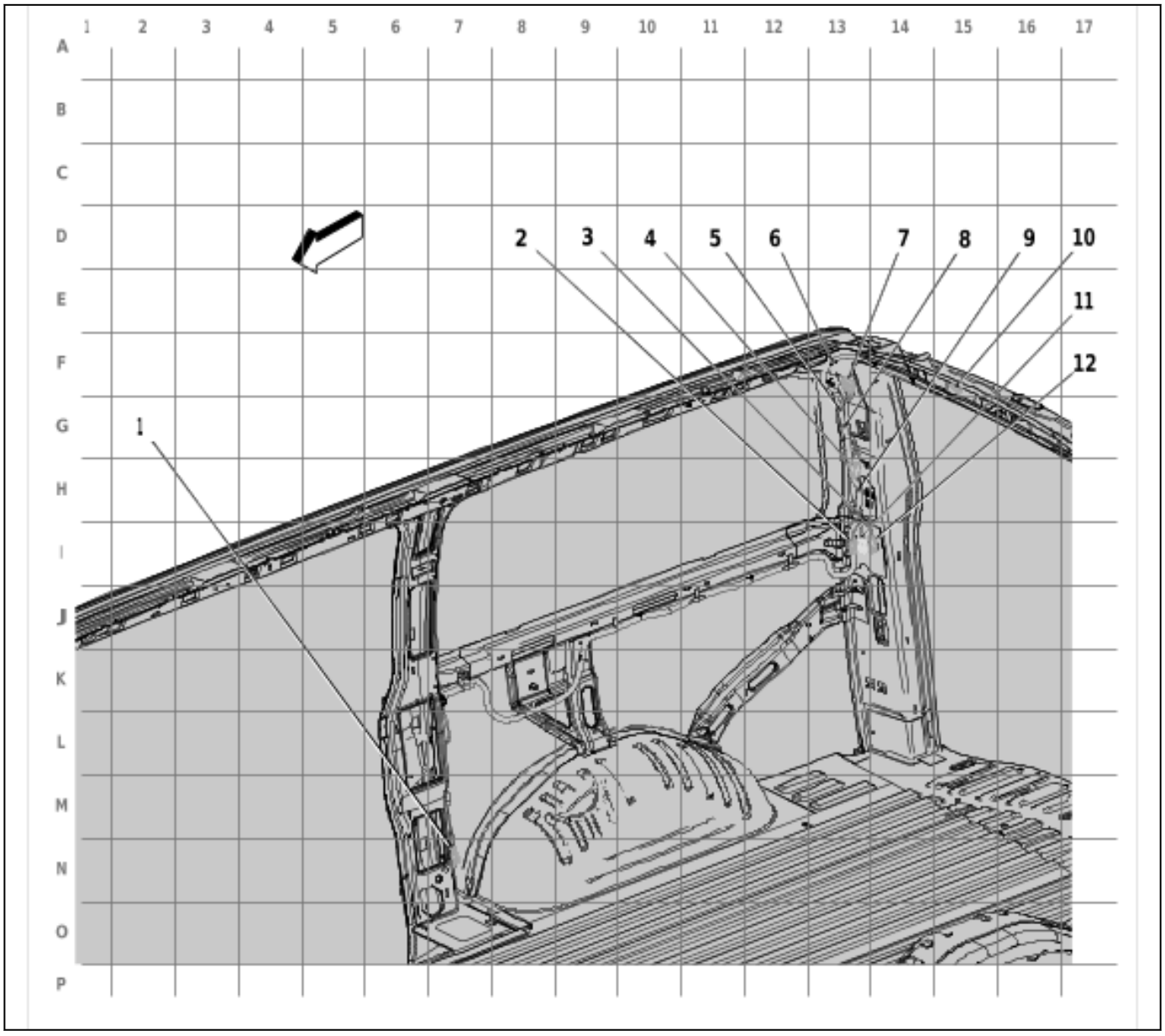
Body Harness Routing - Right Rear Passenger Compartment - Cargo



6193608

Items
(1) X403 Rear Door Door Wiring Harness to Body Wiring Harness ((Cutaway)/(Cargo/Passenger))
X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway) X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)
(2) X400 Rear Door Door Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X400 Rear Door Door Wiring Harness to Body Wiring Harness
(3) X420 Tail Lamp Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X420 Tail Lamp Wiring Harness to Body Wiring Harness
(4) J403 Body Wiring Harness (Cargo/Passenger)
(5) J451 Body Wiring Harness
(6) J450 Body Wiring Harness
(7) X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness
(8) X412 Rear Door Door Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X412 Rear Door Door Wiring Harness to Body Wiring Harness

Body Harness Routing - Right Rear Passenger Compartment - Passenger

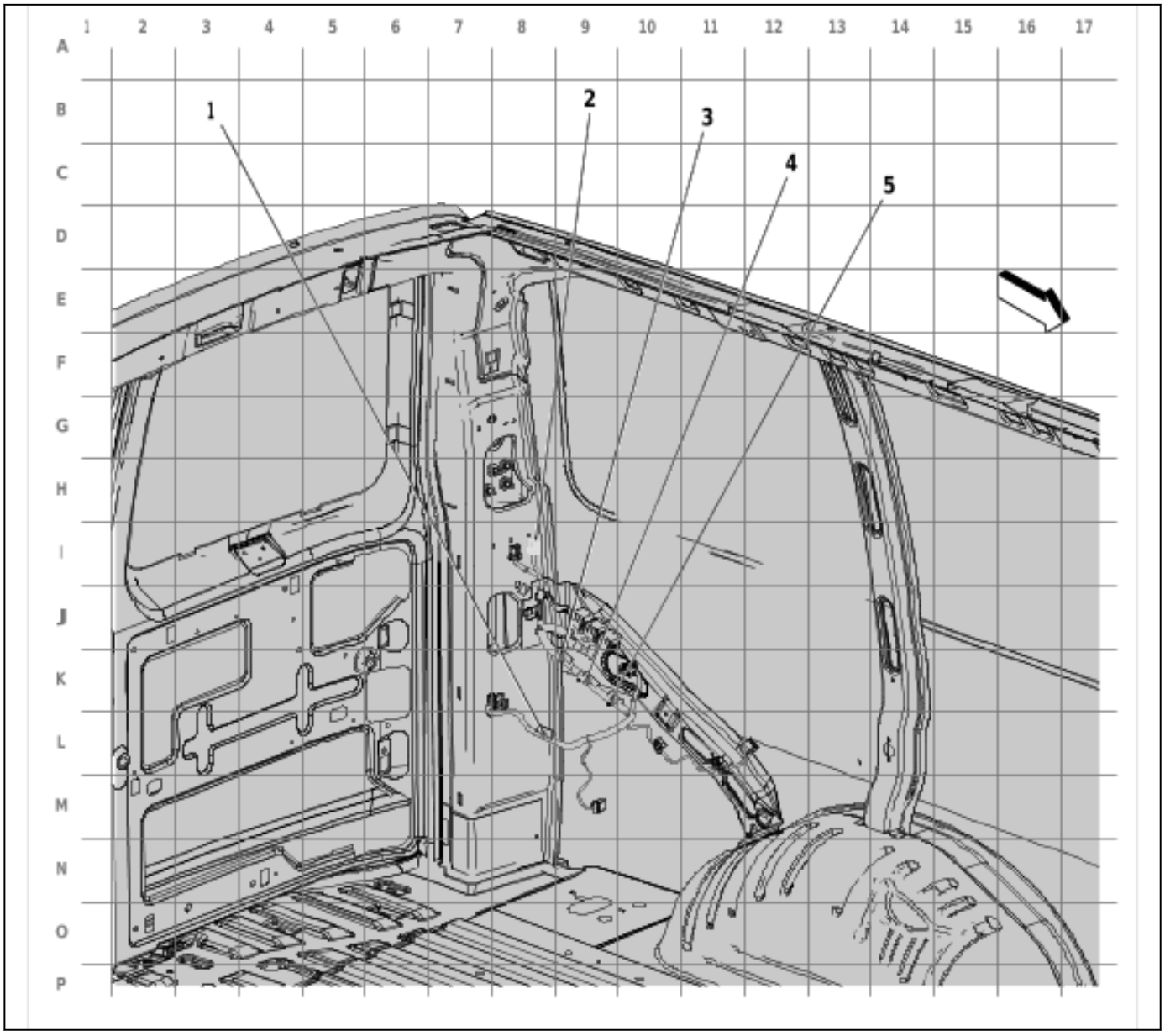


6193557

Items
(1) X324 Airbag Wiring Harness to Body Wiring Harness (ASF)
X324 Airbag Wiring Harness to Body Wiring Harness (ASF)
(2) X403 Rear Door Door Wiring Harness to Body Wiring Harness ((Cutaway)/(Cargo/Passenger))
X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway) X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)
(3) J376 Body Wiring Harness (Cargo/Passenger)
(4) X420 Tail Lamp Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X420 Tail Lamp Wiring Harness to Body Wiring Harness
(5) J450 Body Wiring Harness
(6) J403 Body Wiring Harness (Cargo/Passenger)

Items
(7) X421 Roof Console Wiring Harness to Body Wiring Harness
X421 Roof Console Wiring Harness to Body Wiring Harness
(8) J451 Body Wiring Harness
(9) X403 Rear Door Door Wiring Harness to Body Wiring Harness ((Cutaway)/(Cargo/Passenger))
X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway) X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)
(10) X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness
(11) X400 Rear Door Door Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X400 Rear Door Door Wiring Harness to Body Wiring Harness
(12) X412 Rear Door Door Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X412 Rear Door Door Wiring Harness to Body Wiring Harness

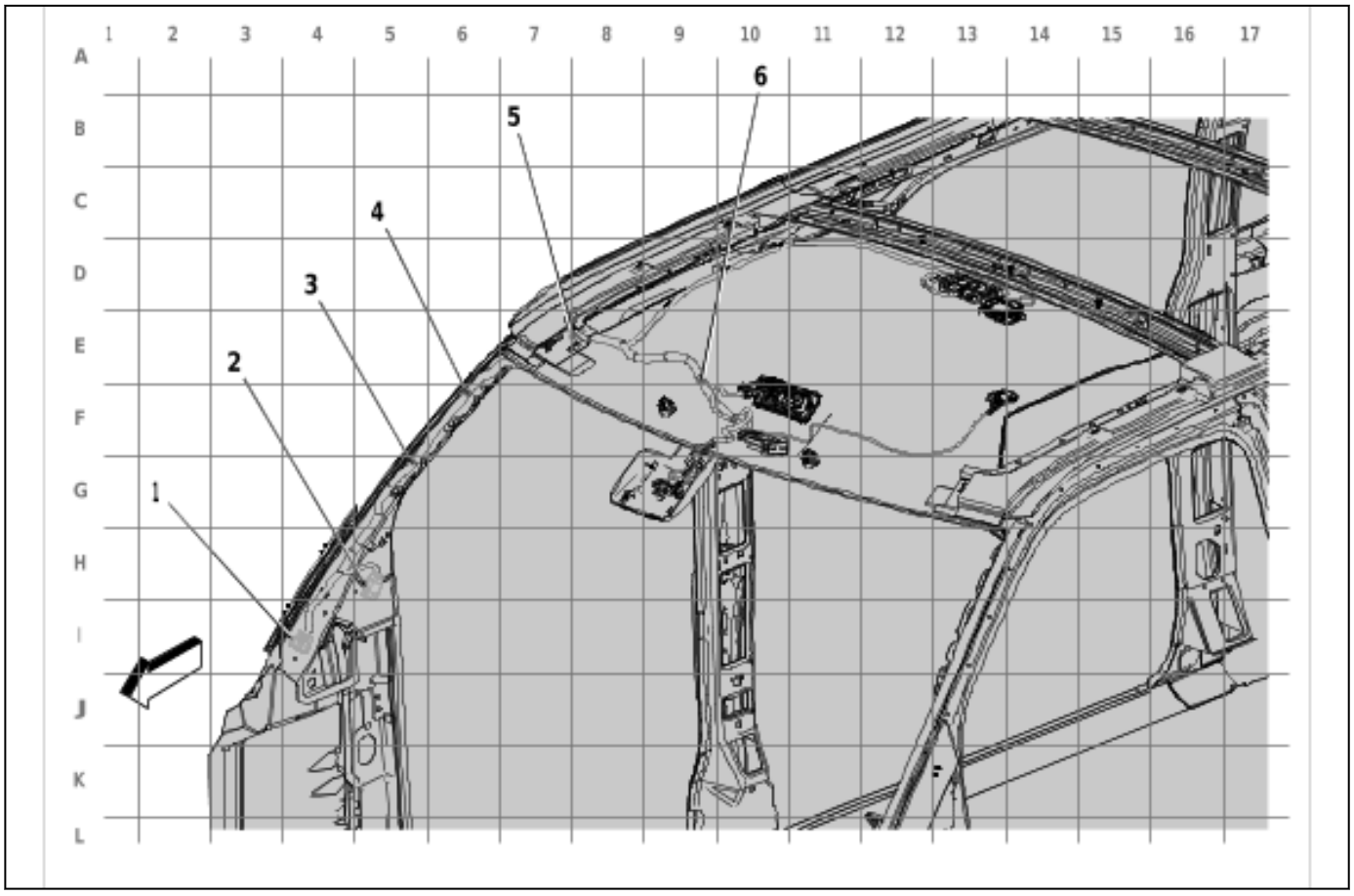
Auxiliary HVAC Harness Routing - Left Rear Passenger Compartment (C36 / C69)



6594018

Items
(1) J413 Rear HVAC Wiring Harness (C36/C69)
(2) X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36/C69) X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36 / C69)
(3) J412 Rear HVAC Wiring Harness (C36/C69)
(4) J405 Rear HVAC Wiring Harness (C36/C69)
(5) J411 Rear HVAC Wiring Harness (C69)

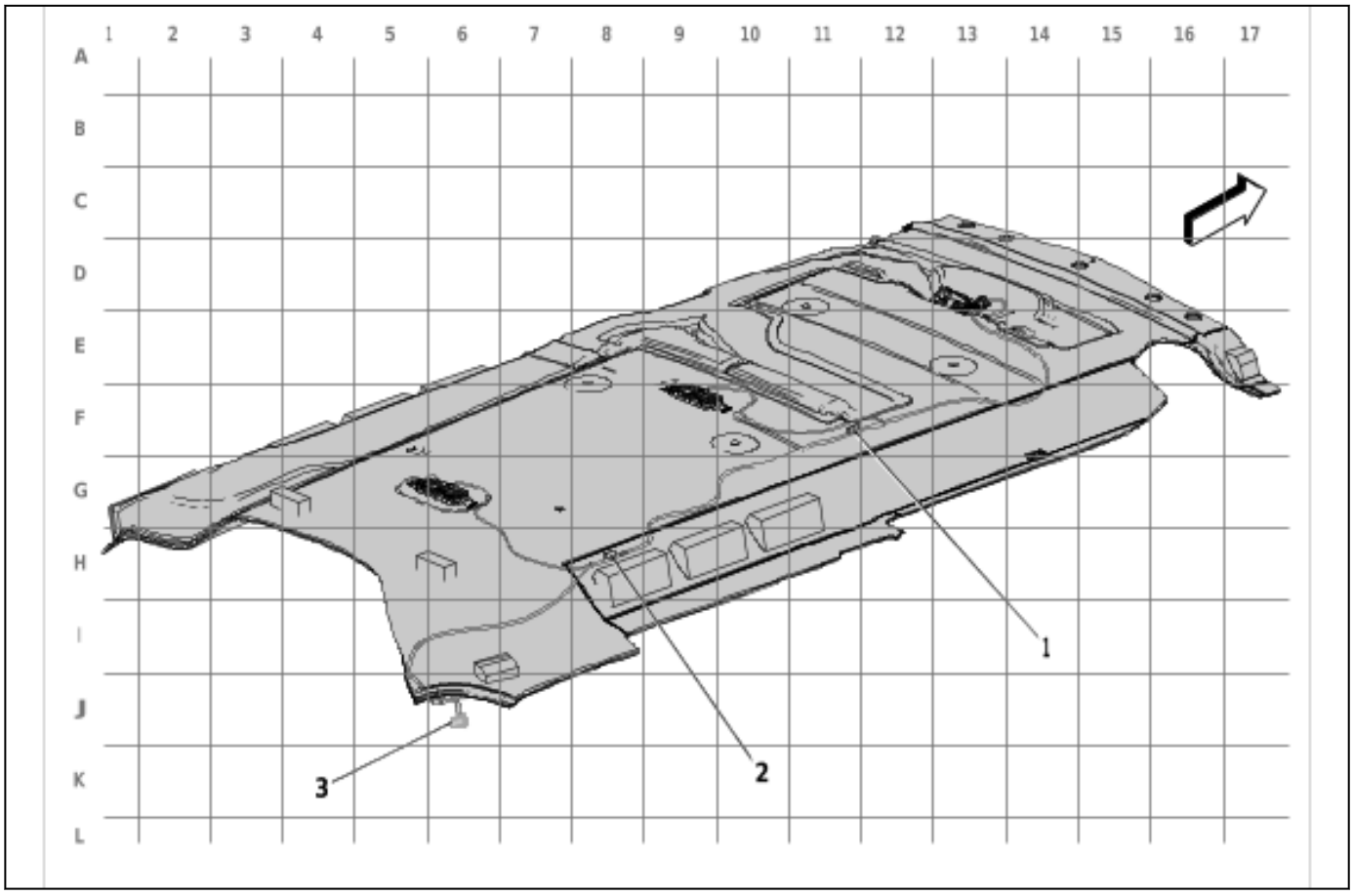
Roof Harness Routing - Front



6003051

Items
X205 Roof Console Wiring Harness to Body Wiring Harness
(2) X204 Body Wiring Harness to Roof Console Wiring Harness
X204 Body Wiring Harness to Roof Console Wiring Harness
(3) J314 Front Headliner Wiring Harness
(4) J333 Front Headliner Wiring Harness (DH6)
(5) J335 Front Headliner Wiring Harness (U80)
(6) J307 Front Headliner Wiring Harness (C69)

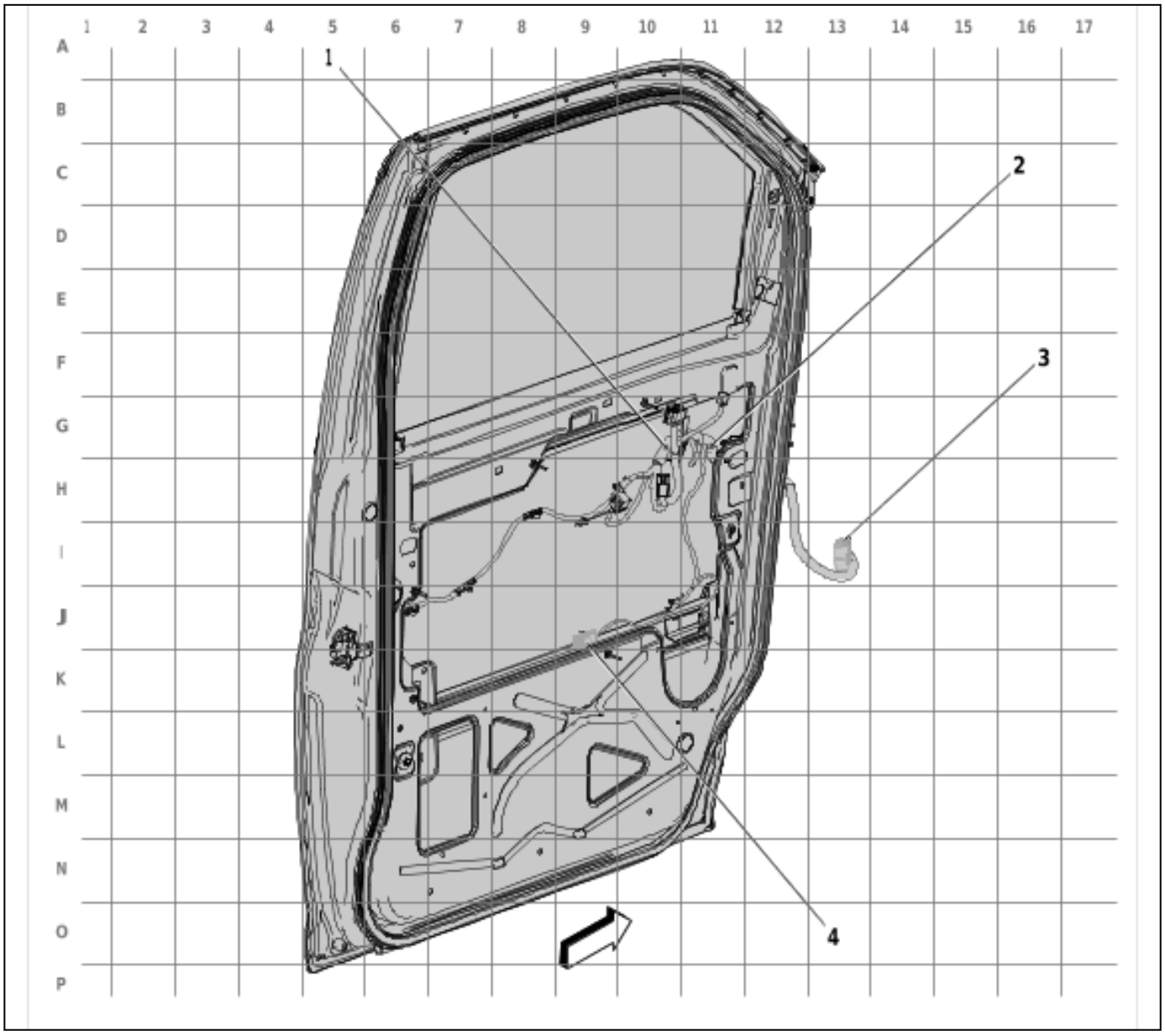
Roof Harness Routing - Rear



6003052

Items
(1) J330 Rear Headliner Wiring Harness (Passenger)
(2) J407 Rear Headliner Wiring Harness (Passenger)
(3) X421 Roof Console Wiring Harness to Body Wiring Harness
X421 Roof Console Wiring Harness to Body Wiring Harness

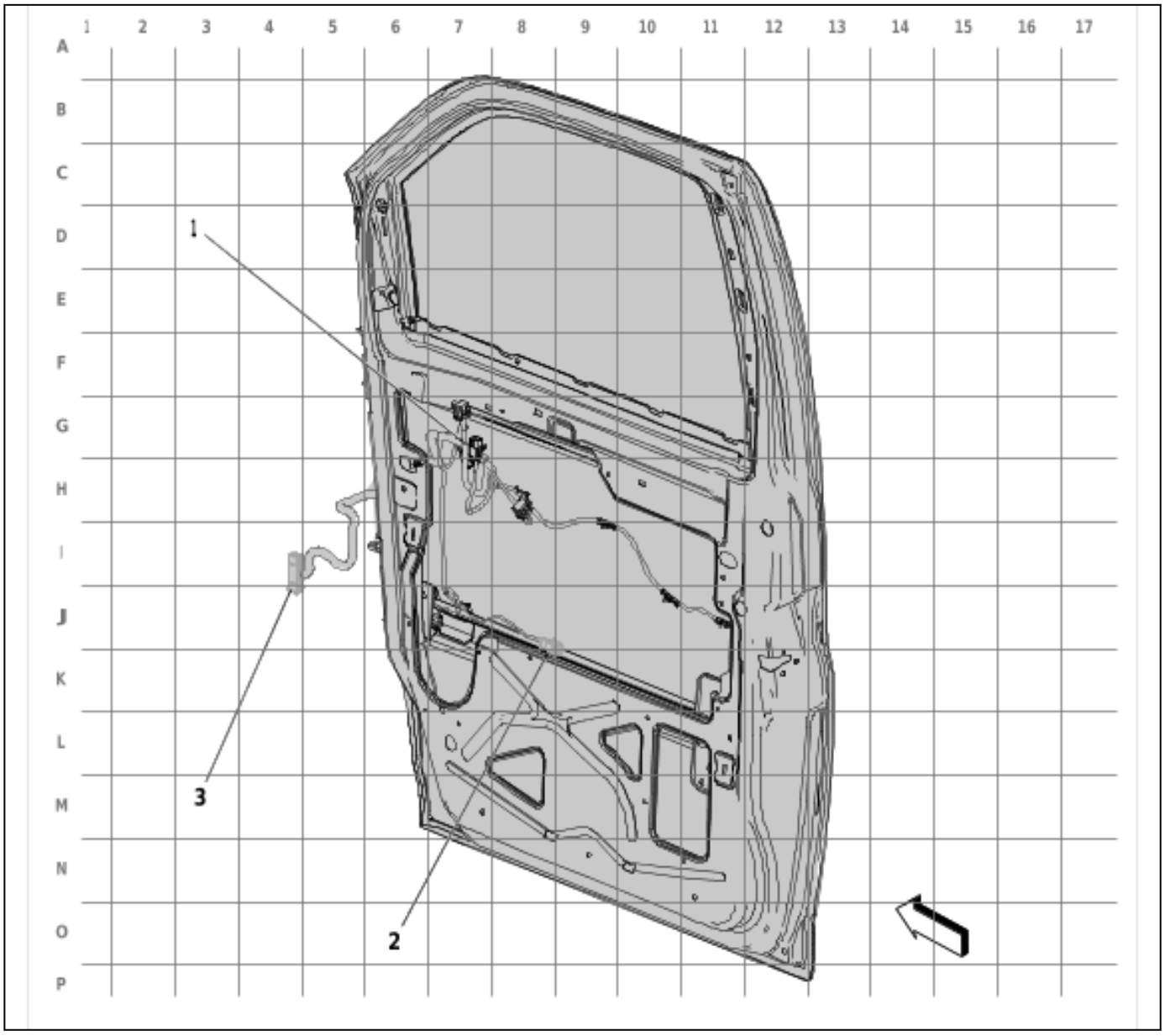
Door Harness Routing - Driver Door



6003053

Items
(1) J500 Driver Door Wiring Harness (AU3/DE5/A31)
(2) J502 Driver Door Wiring Harness (DE5)
(3) X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
(4) X501 Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver (ASF) X501 Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver (ASF)

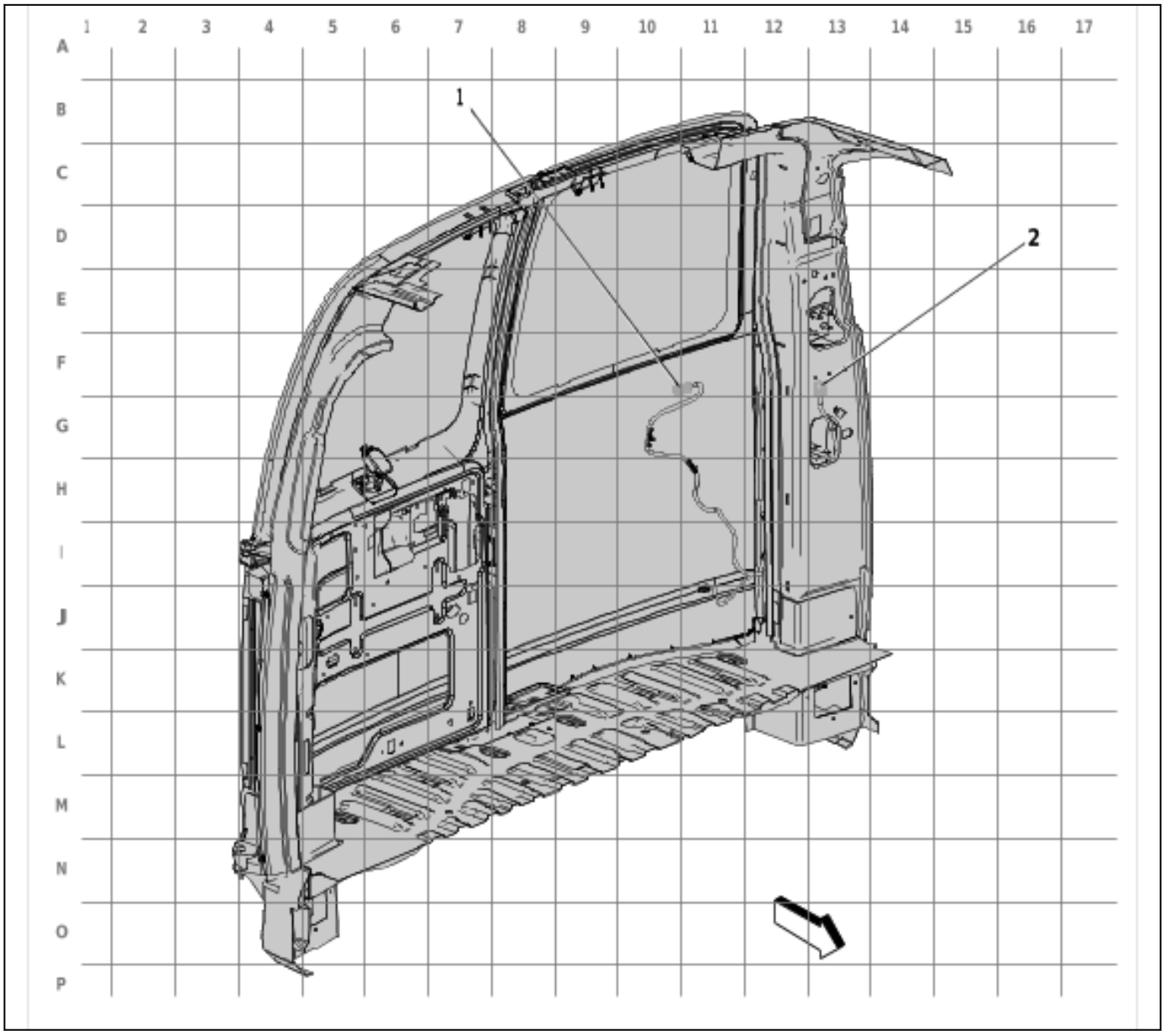
Door Harness Routing - Passenger Door



6003055

Items
(1) J600 Passenger Door Wiring Harness (AU3/DE5/A31)
(2) X601 Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger (ASF) X601 Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger (ASF)
(3) X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness

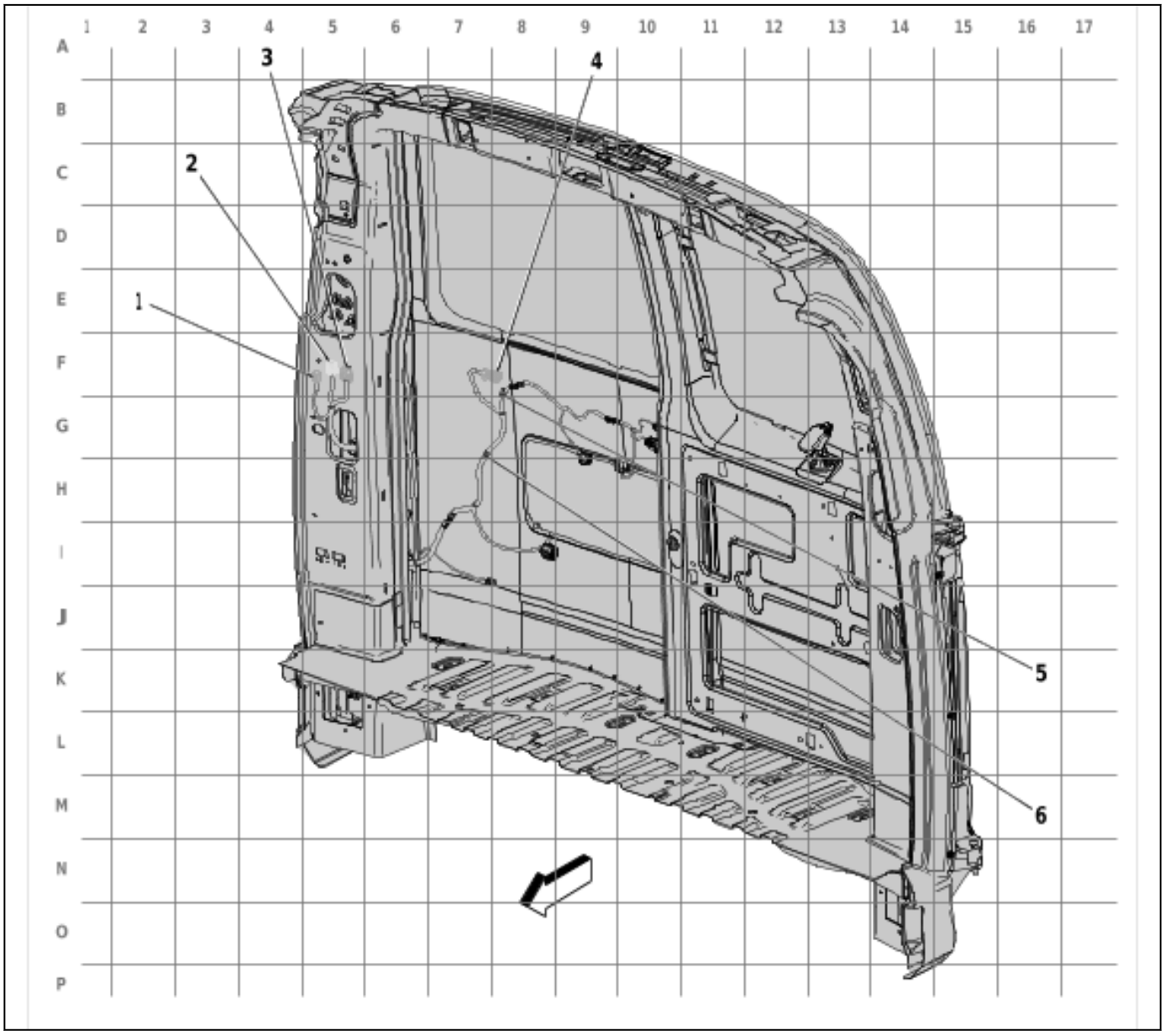
Door Harness Routing - Driver Rear - Passenger/Cargo



6003056

Items
(1) X901 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left (C49)
X901 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left (C49)
(2) X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness (Passenger/Cargo)
X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness

Door Harness Routing - Passenger Rear - Passenger/Cargo

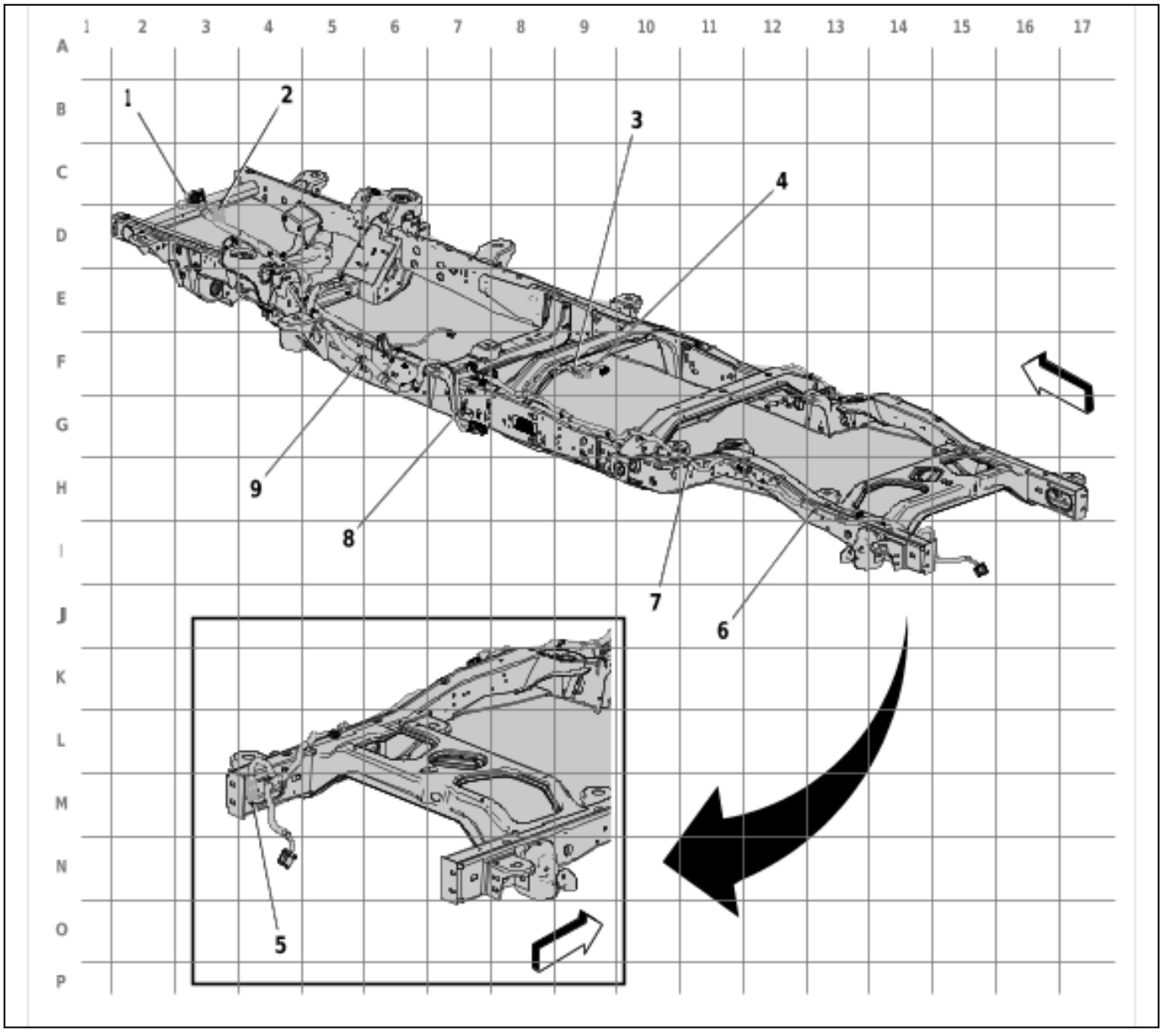


6003057

Items
(1) X403 Rear Door Door Wiring Harness to Body Wiring Harness ((Cutaway)/(Cargo/Passenger))
X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway) X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)
(2) X400 Rear Door Door Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X400 Rear Door Door Wiring Harness to Body Wiring Harness
(3) X412 Rear Door Door Wiring Harness to Body Wiring Harness (Passenger/Cargo)
X412 Rear Door Door Wiring Harness to Body Wiring Harness

Items
(4) X902 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness (C49)
X902 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness (C49)
(5) J901 Right Rear Cargo Door Wiring Harness (Cargo/ Passenger + AU3)
(6) J902 Right Rear Cargo Door Wiring Harness (Cargo/ Passenger + C49)

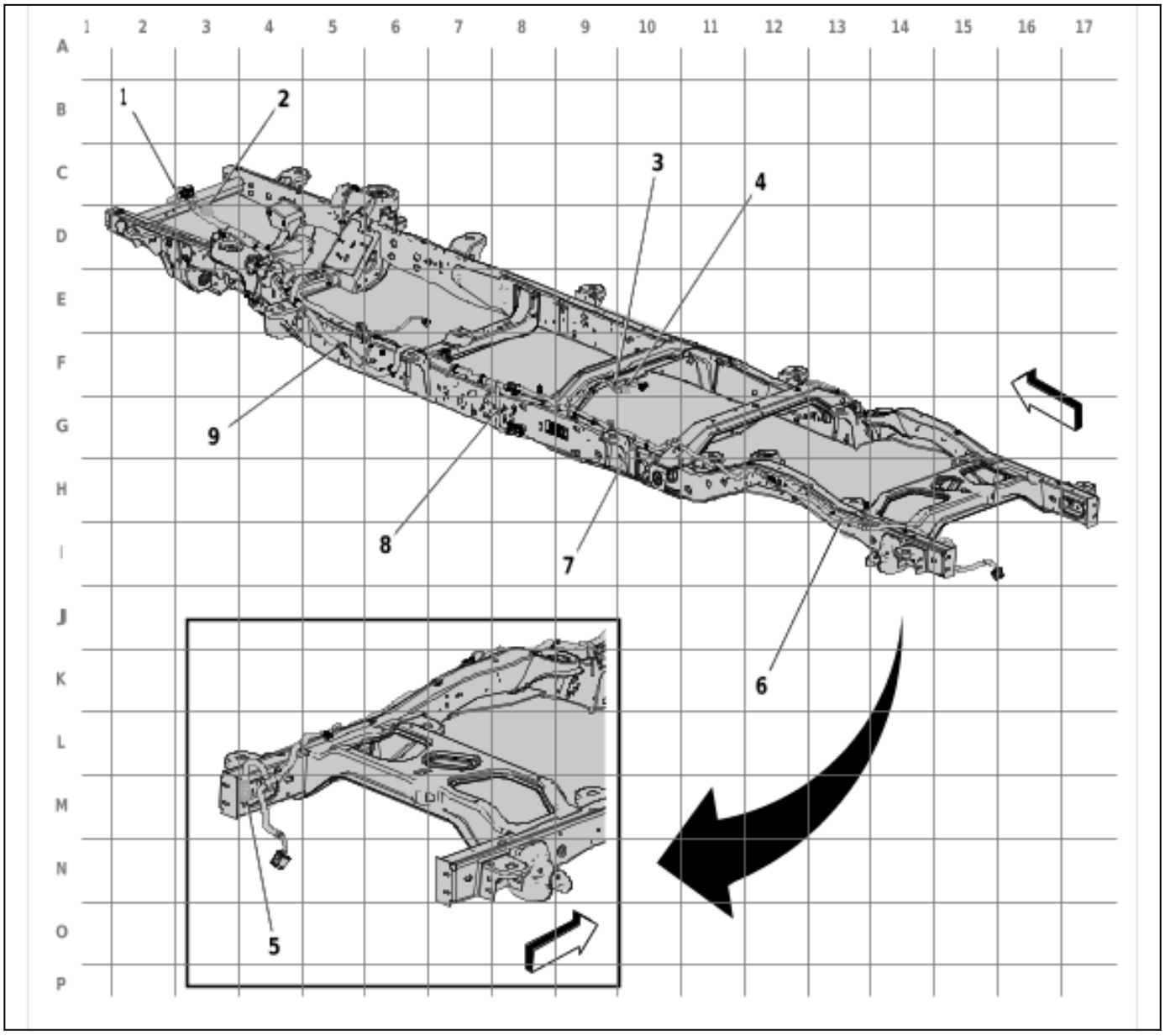
Chassis Harness Routing - Underbody - Passenger/Cargo with SWB



5985298

Items
(1) X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
(2) X101 Engine Wiring Harness to Chassis Wiring Harness
X101 Engine Wiring Harness to Chassis Wiring Harness
(3) J432 Chassis Wiring Harness
(4) X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
(5) X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7/UFT)
X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7 / UFT)
(6) J404 Chassis Wiring Harness
(7) J402 Chassis Wiring Harness
(8) J431 Chassis Wiring Harness
(9) J315 Chassis Wiring Harness

Chassis Harness Routing - Underbody - Passenger/Cargo with LWB

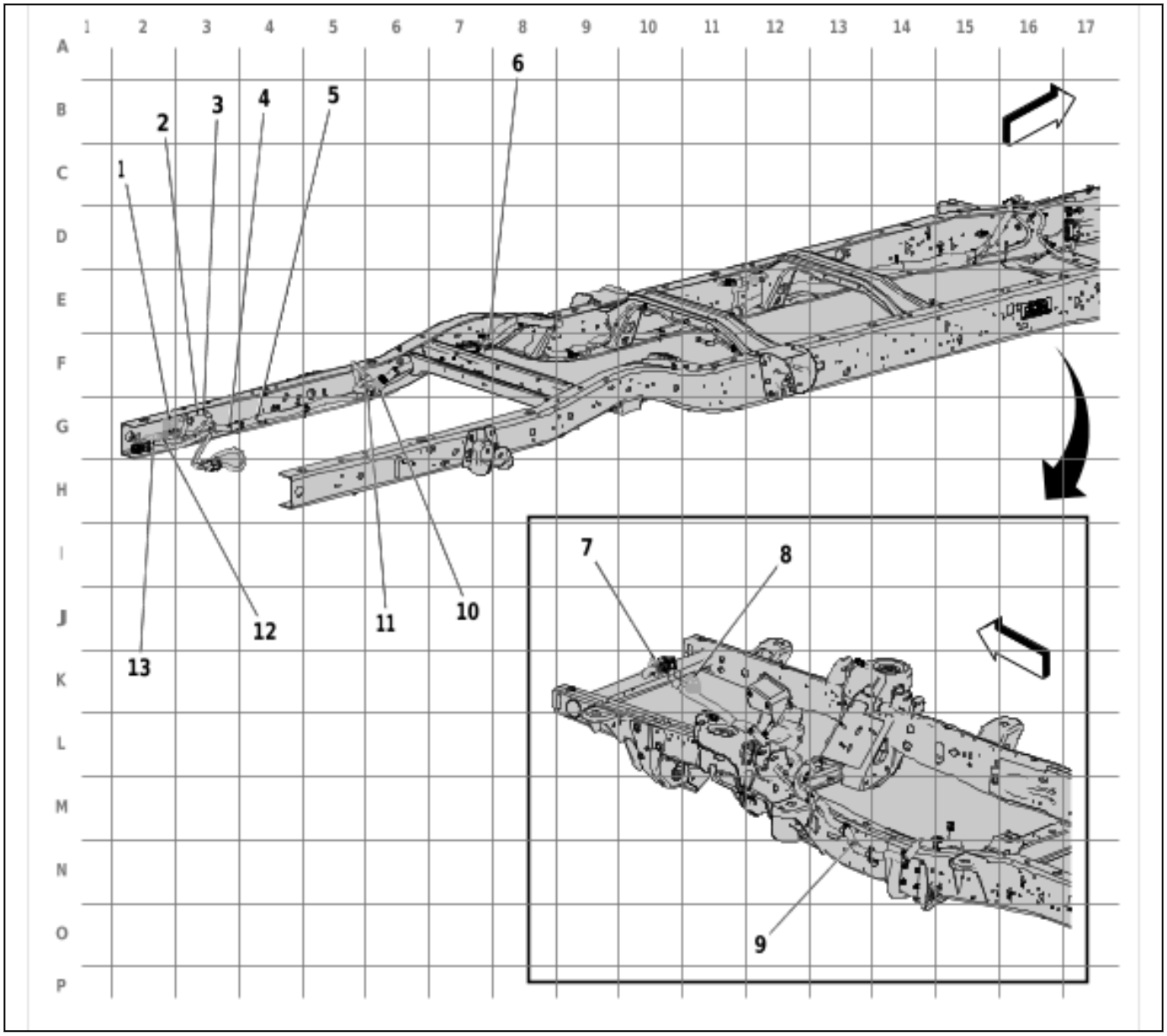


5985299

Items
(1) X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
(2) X101 Engine Wiring Harness to Chassis Wiring Harness
X101 Engine Wiring Harness to Chassis Wiring Harness
(3) J432 Chassis Wiring Harness
(4) X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
(5) X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7/UFT)
X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7 / UFT)
(6) J404 Chassis Wiring Harness

Items
(7) J402 Chassis Wiring Harness
(8) J431 Chassis Wiring Harness
(9) J315 Chassis Wiring Harness

Chassis Harness Routing - Underbody - Cutaway (NE7)

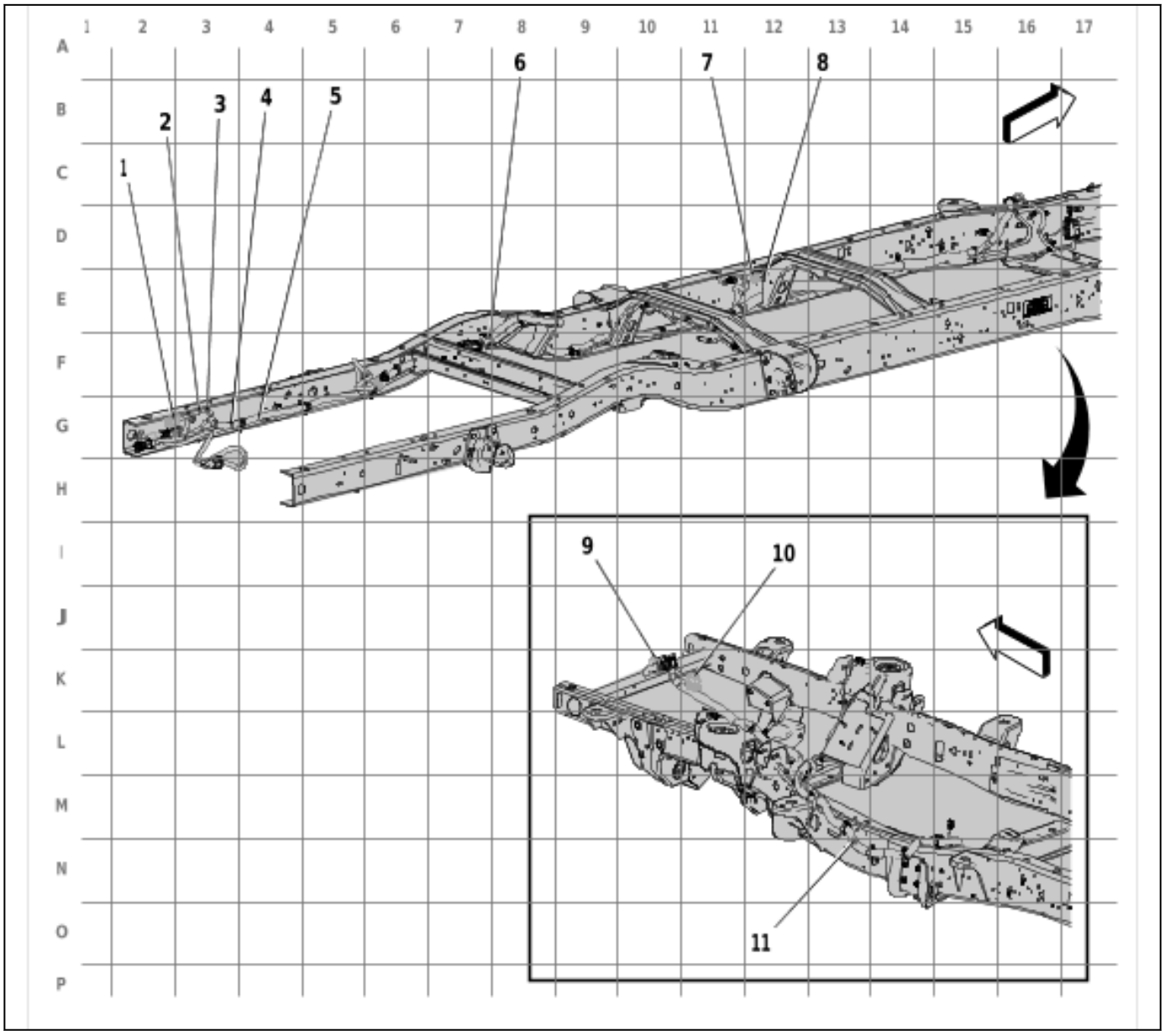


5985300

Items
(1) X405 Chassis Rear Wiring Harness Extension Harness to Chassis Rear Wiring Harness Extension Harness - Cutaway (Cutaway)
X405 Chassis Wiring Harness to Chassis Wiring Harness - Cutaway
(2) J387 Chassis Wiring Harness (Cutaway)
(3) J388 Chassis Wiring Harness (Cutaway)
(4) J404 Chassis Wiring Harness
(5) J402 Chassis Wiring Harness

Items
(6) J431 Chassis Wiring Harness
(7) X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
(8) X101 Engine Wiring Harness to Chassis Wiring Harness
X101 Engine Wiring Harness to Chassis Wiring Harness
(9) J315 Chassis Wiring Harness
(10) X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
(11) J432 Chassis Wiring Harness
(12) W8 Blunt Cut - Trailer Provision (NE7)
(13) X460 Chassis Wiring Harness to Chassis Wiring Harness
X460 Chassis Wiring Harness to Chassis Wiring Harness

Chassis Harness Routing - Underbody - Cutaway (- NE7)

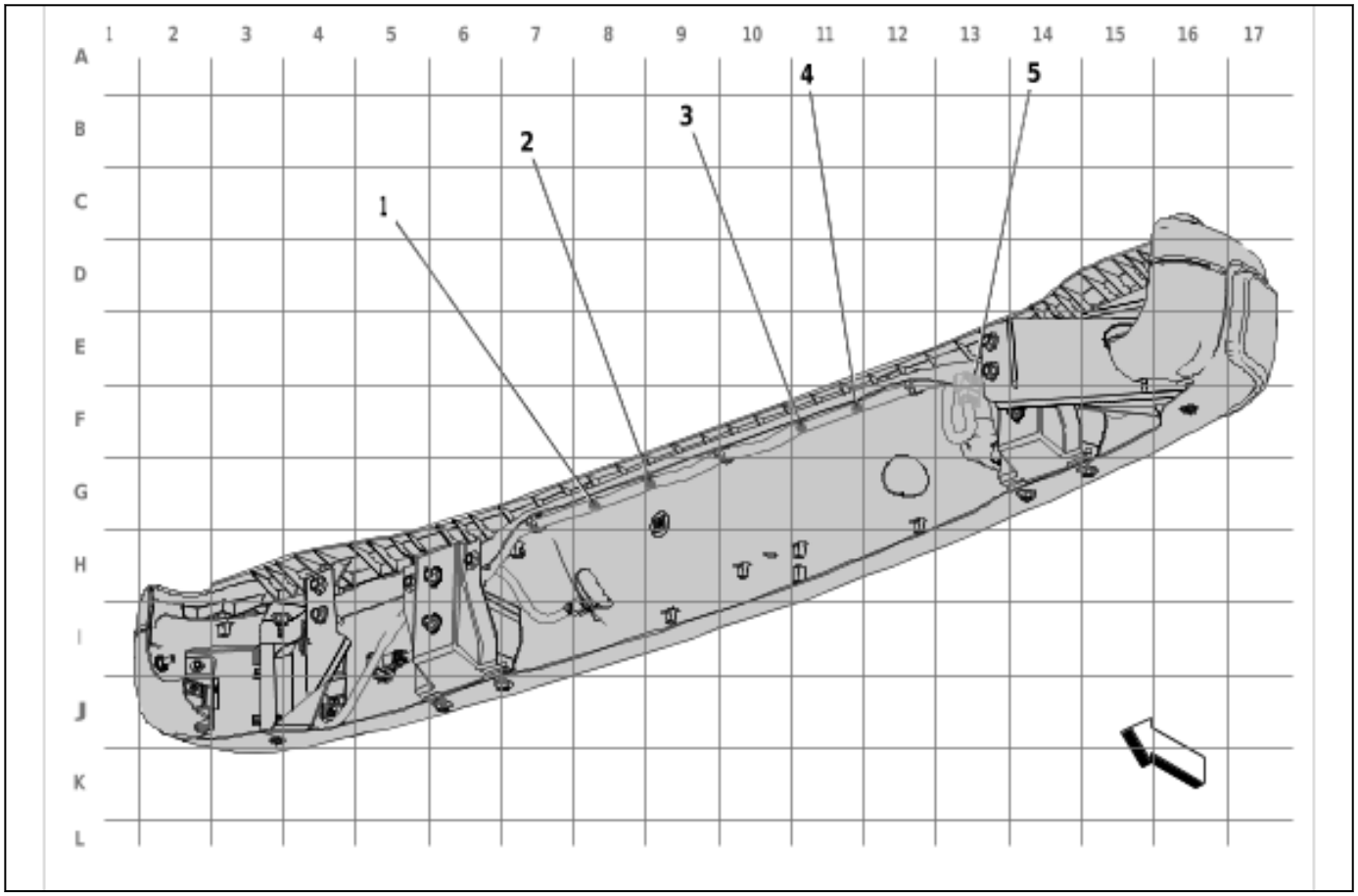


5985301

Items
(1) X405 Chassis Rear Wiring Harness Extension Harness to Chassis Rear Wiring Harness Extension Harness - Cutaway (Cutaway)
X405 Chassis Wiring Harness to Chassis Wiring Harness - Cutaway
(2) J387 Chassis Wiring Harness (Cutaway)
(3) J388 Chassis Wiring Harness (Cutaway)
(4) J404 Chassis Wiring Harness
(5) J402 Chassis Wiring Harness
(6) J431 Chassis Wiring Harness
(7) X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
(8) J432 Chassis Wiring Harness

Items
(9) X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
X185 Instrument Panel Wiring Harness to Chassis Wiring Harness
(10) X101 Engine Wiring Harness to Chassis Wiring Harness
X101 Engine Wiring Harness to Chassis Wiring Harness
(11) J315 Chassis Wiring Harness

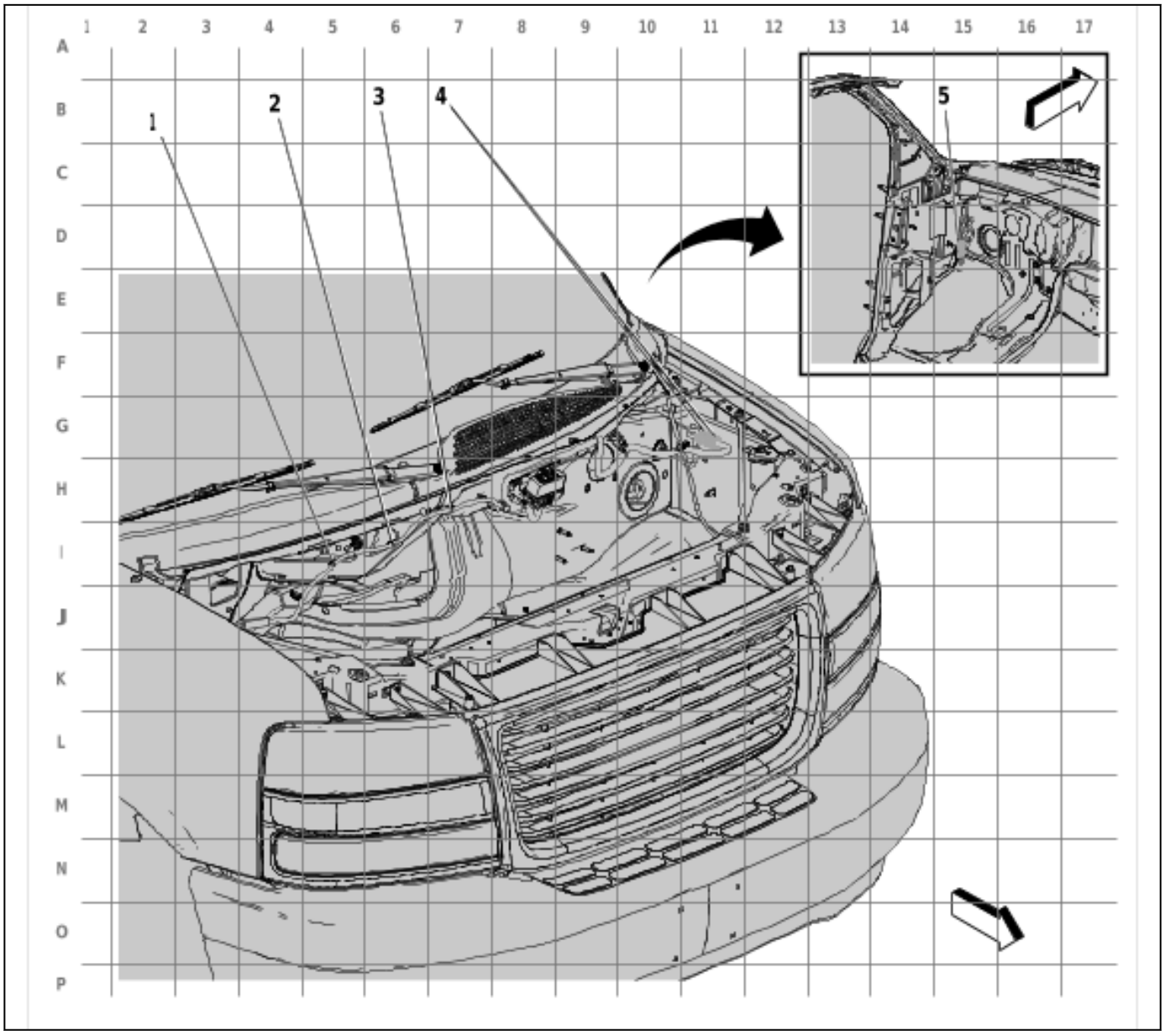
Rear Bumper Harness Routing



6003058

Items
(1) J425 Parking Aid Jumper Wiring Harness (UFT)
(2) J426 Parking Aid Jumper Wiring Harness (UFT)
(3) J420 Rear Bumper Wiring Harness (UD7)
(4) J421 Rear Bumper Wiring Harness (UD7)
(5) X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7/UFT)
X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7 / UFT)

Upfitter Provision Harness Routing - Engine Compartment (9L7)

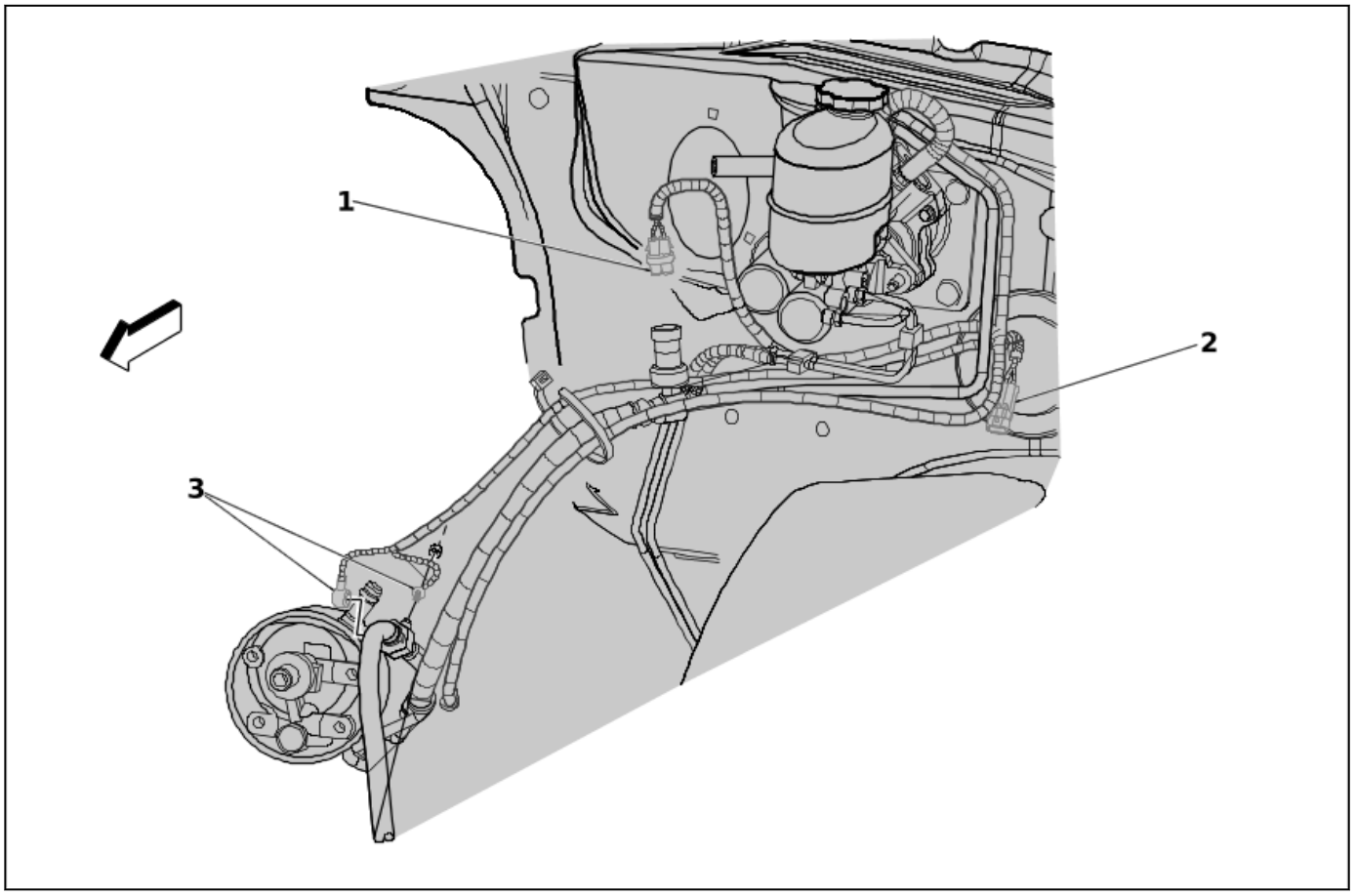


6003060

Items
(1) J104 Fuse Block Jumper Wiring Harness (9L7)
(2) J105 Fuse Block Jumper Wiring Harness (9L7)
(3) J106 Fuse Block Jumper Wiring Harness (9L7)
(4) X190 Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7) X190 Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)
(5) X291 Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7) X291 Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)

Component Locator

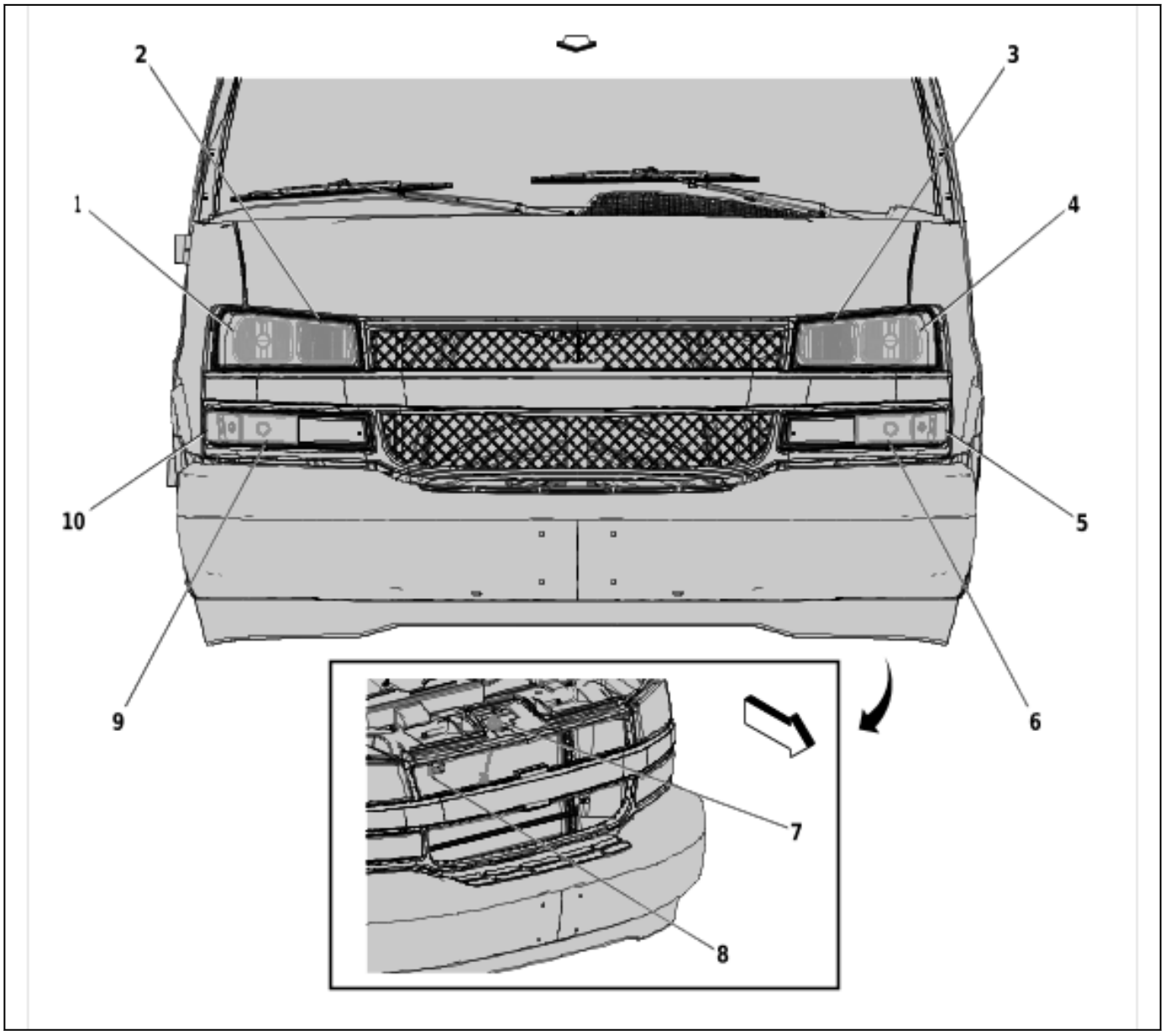
Brake Booster Fluid Alarm Switches (UJ1)



2831205

Items
(1) B19A Brake Booster Fluid Pressure Alarm Switch (UJ1)
B19A Brake Booster Fluid Pressure Alarm Switch (UJ1)
(2) X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness (UJ1)
X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness (UJ1)
(3) B133 Brake Booster Fluid Flow Alarm Switch (UJ1)
B133 Brake Booster Fluid Flow Alarm Switch X1 (UJ1) B133 Brake Booster Fluid Flow Alarm Switch X2 (UJ1)

Front of Vehicle Components

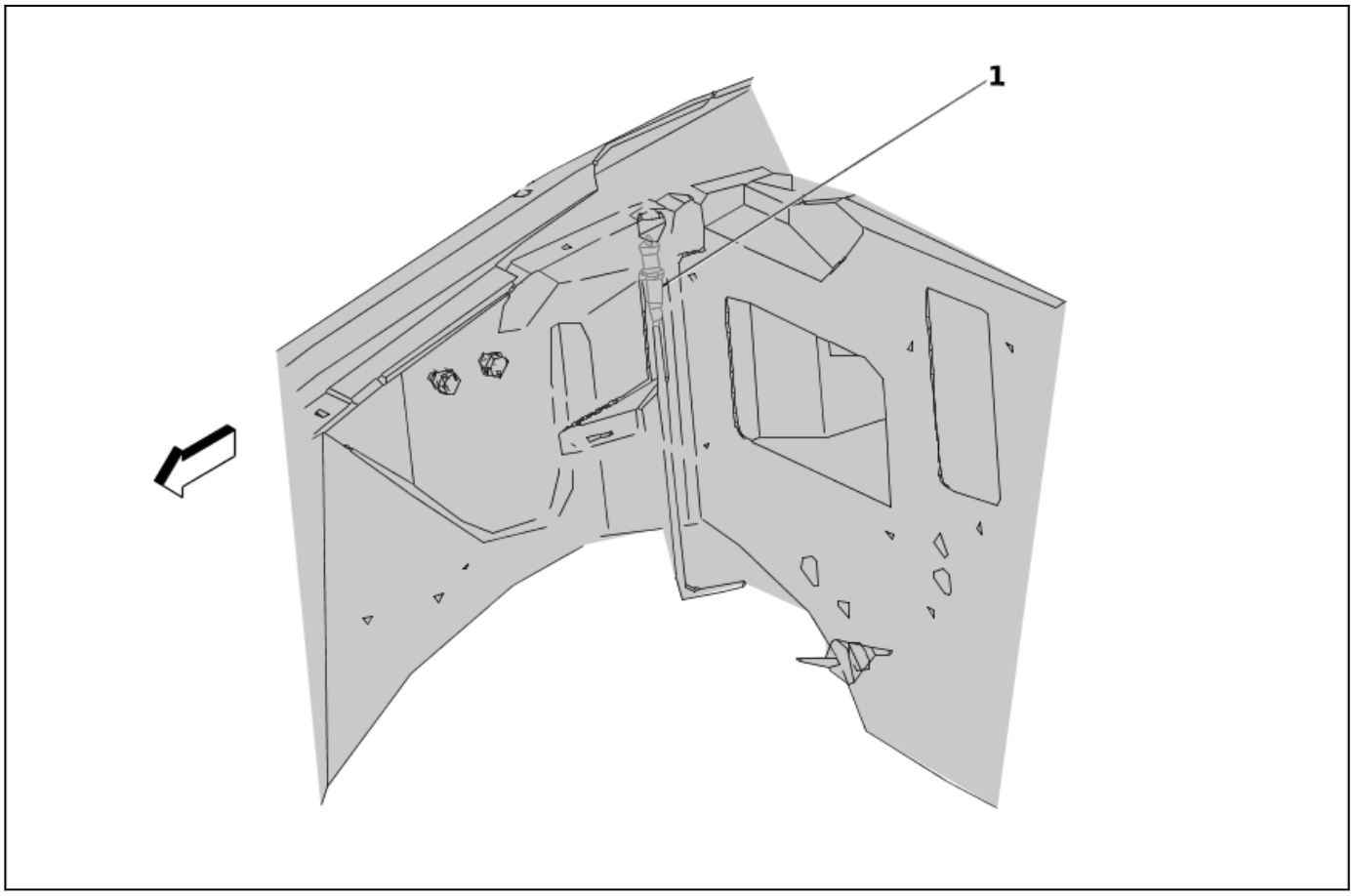


6040670

Items
(1) E4H Headlamp - Right Low Beam E4H Headlamp - Right Low Beam
(2) E4F Headlamp - Right High Beam E4F Headlamp - Right High Beam
(3) E4E Headlamp - Left High Beam E4E Headlamp - Left High Beam
(4) E4G Headlamp - Left Low Beam E4G Headlamp - Left Low Beam
(5) E2LF Side Marker Lamp - Left Front E2LF Side Marker Lamp - Left Front
(6) E4N Park/Turn Signal Lamp - Left E4N Park/Turn Signal Lamp - Left
(7) B55 Engine Hood Switch (BTV) B55 Engine Hood Switch (BTV)

Items
(8) B9 Ambient Air Temperature Sensor (L8T/LV1/UFA) B9 Ambient Air Temperature Sensor (LV1 / L8T) B9 Ambient Air Temperature Sensor (UFA)
(9) E4P Park/Turn Signal Lamp - Right E4P Park/Turn Signal Lamp - Right
(10) E2RF Side Marker Lamp - Right Front E2RF Side Marker Lamp - Right Front

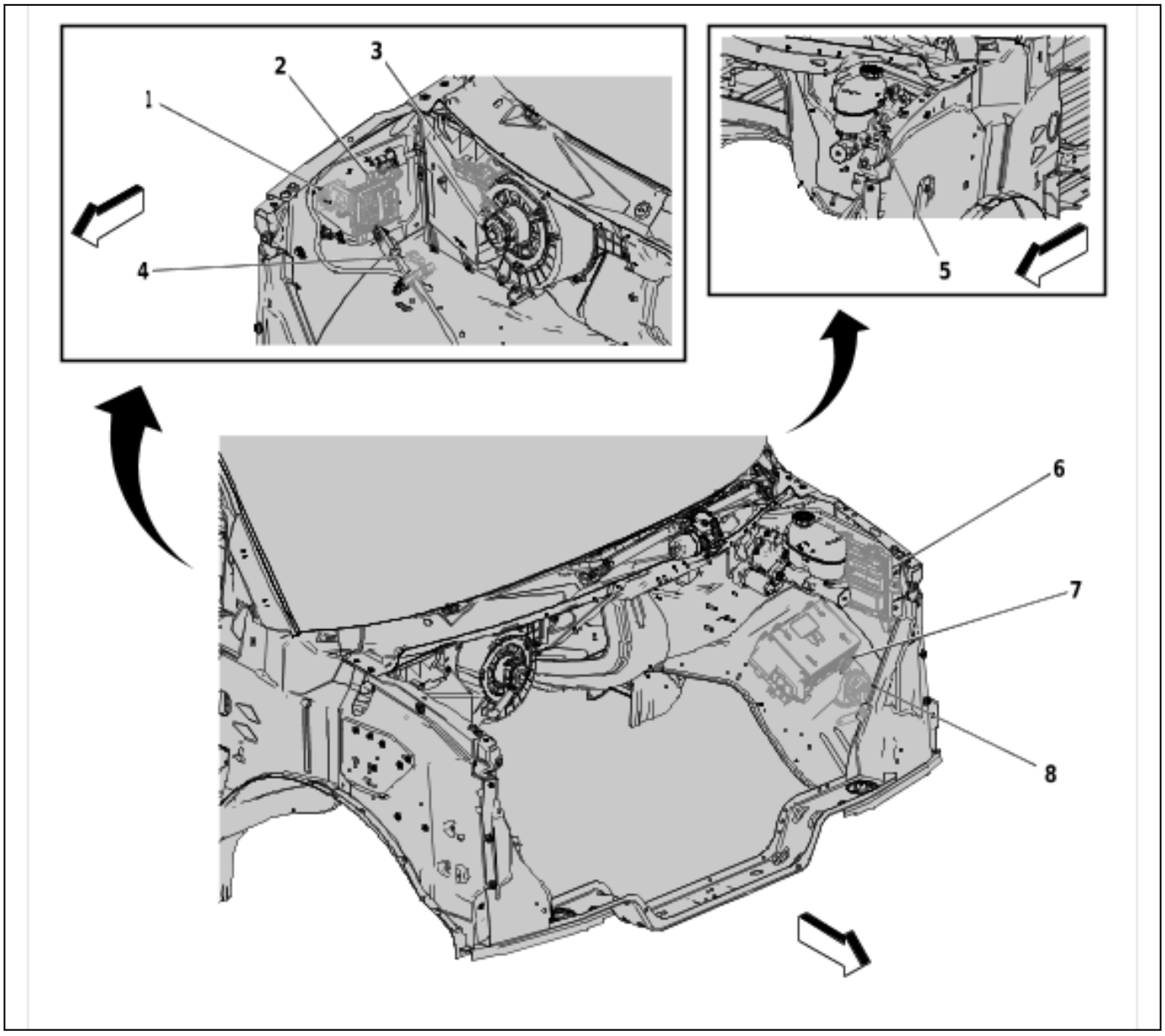
Right Rear of the Engine Compartment Components



4003764

Items
(1) T4M Radio Antenna T4M Radio Antenna

Engine Compartment Components - 1 of 3

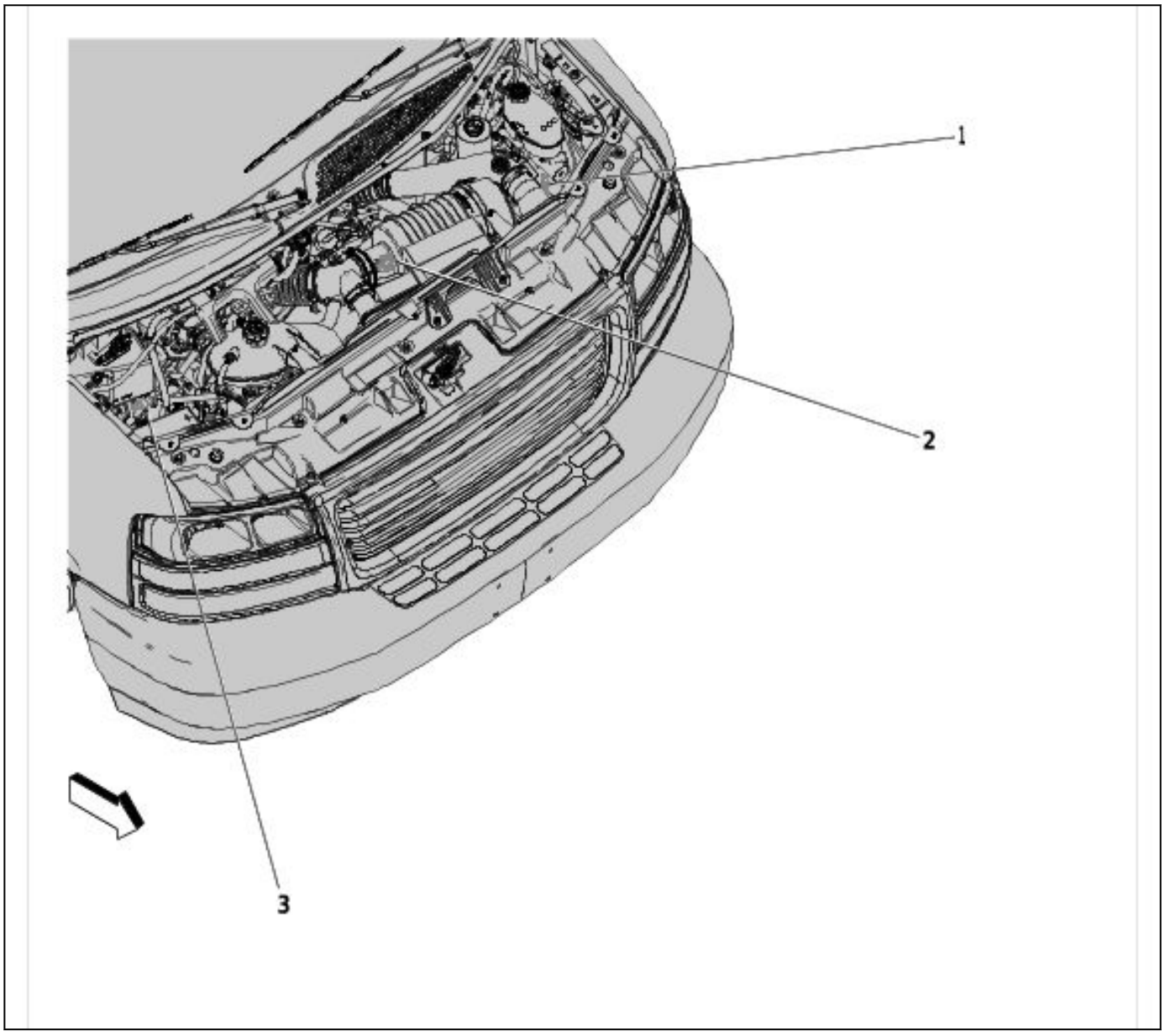


6326433

Items
(1) KR81 Auxiliary Battery Relay 1
KR81 Auxiliary Battery Relay 1 X1 (L8T) KR81 Auxiliary Battery Relay 1 X1 (LV1) KR81 Auxiliary Battery Relay 1 X2 (LV1 / L8T) KR81 Auxiliary Battery Relay 1 X3 (9L7) KR81 Auxiliary Battery Relay 1 X3 (LV1 / L8T)
(2) K71 Transmission Control Module (L8T/LV1)
K71 Transmission Control Module (L8T) K71 Transmission Control Module (LV1)
(3) R3 Blower Motor Resistor
R3 Blower Motor Resistor
(4) R6A Terminating Resistor - High Speed Bus
R6A Terminating Resistor - High Speed Bus
(5) B20 Brake Fluid Level Switch
B20 Brake Fluid Level Switch

Items
(6) K20 Engine Control Module (LV1/L8T)
K20 Engine Control Module X1 (L8T) K20 Engine Control Module X1 (LV1) K20 Engine Control Module X2 (L8T) K20 Engine Control Module X2 (LV1) K20 Engine Control Module X3 (L8T) K20 Engine Control Module X3 (LV1)
(7) X50A Fuse Block - Underhood
(8) P13 Horn Assembly
P13 Horn Assembly

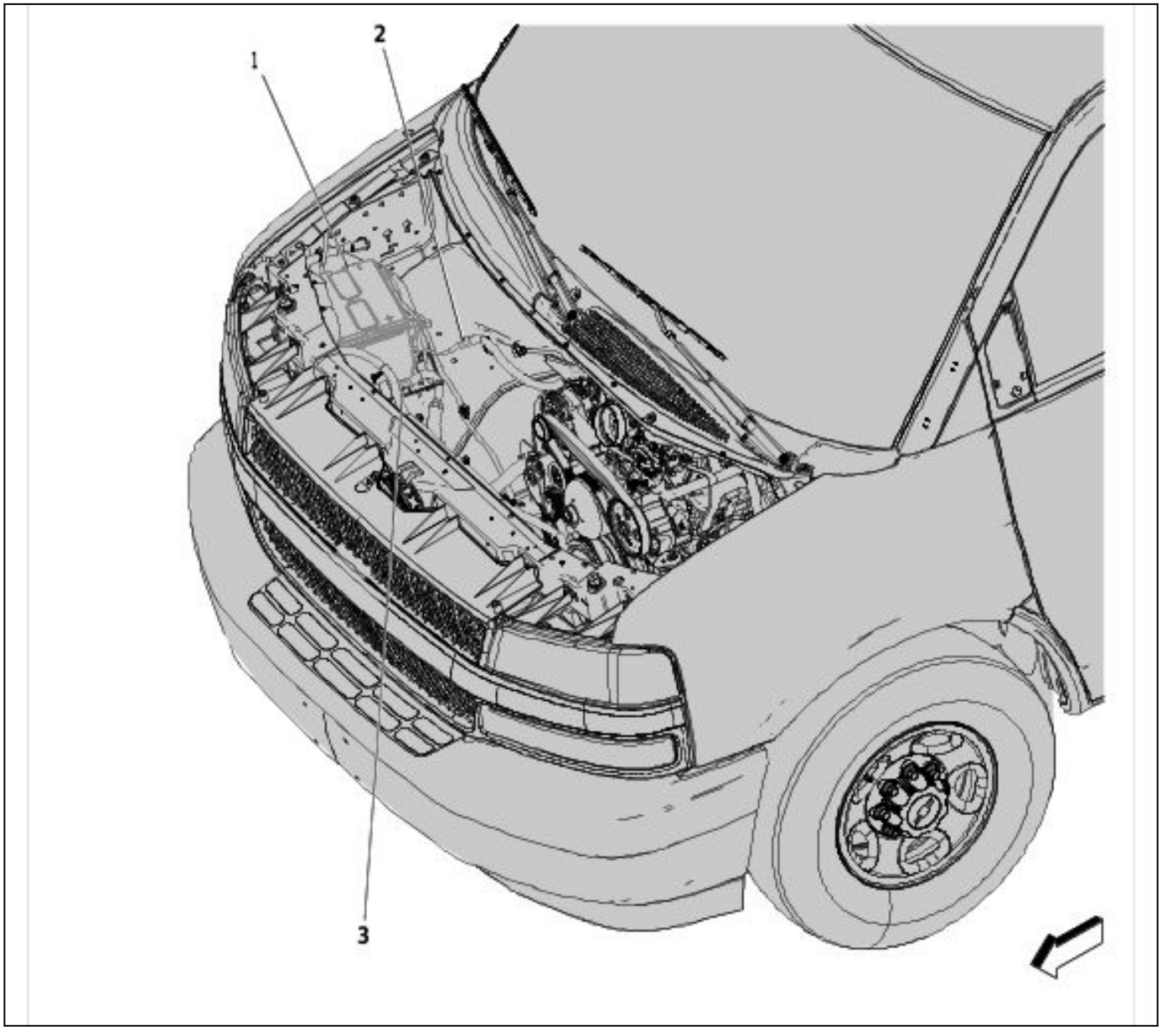
Engine Compartment Components - 2 of 3



6087089

Items
(1) B1 A/C Refrigerant Pressure Sensor B1 A/C Refrigerant Pressure Sensor
(2) B75C Multifunction Intake Air Sensor B75C Multifunction Intake Air Sensor
(3) B1B A/C Low Side Pressure Switch B1B A/C Low Side Pressure Switch

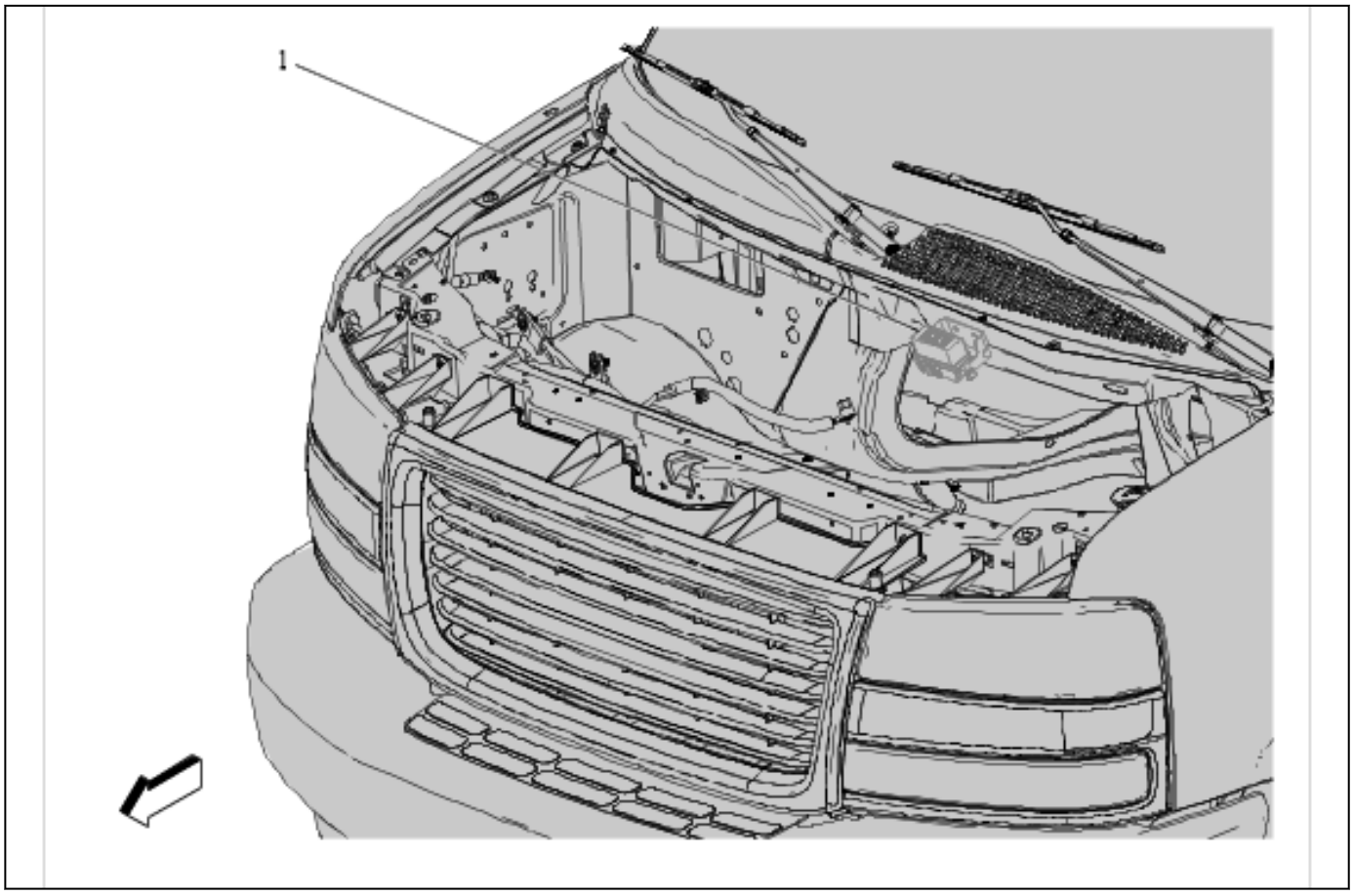
Engine Compartment Components - 3 of 3



6133374

Items
(1) C1 Battery C1 Battery - Negative C1 Battery - Positive
(2) F104C Fusible Link 3
(3) F104B Fusible Link 2

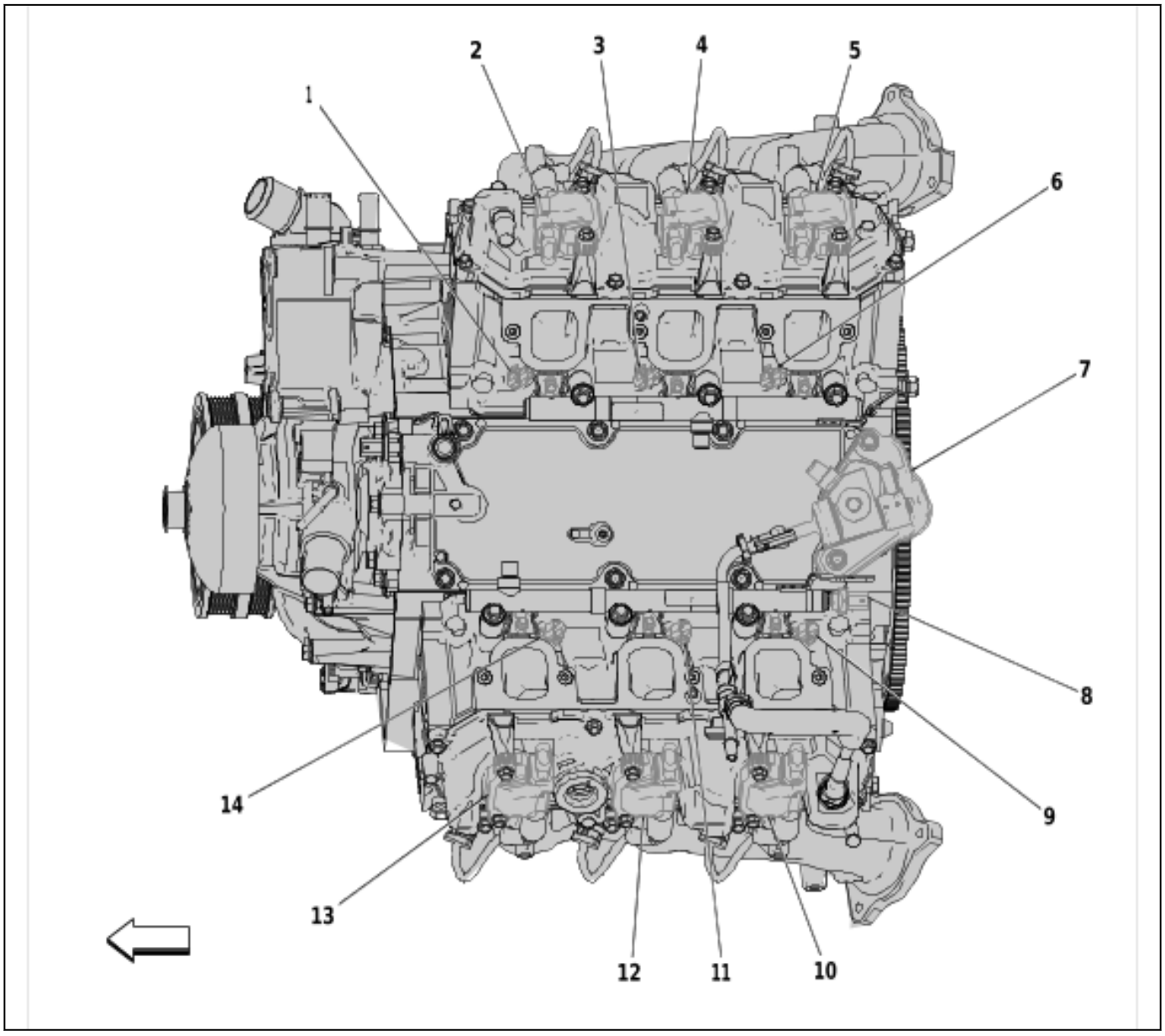
Engine Compartment Components (9L7)



6003005

Items
(1) X50B Fuse Block - Underhood Auxiliary

Top of the Engine Components (LV1)

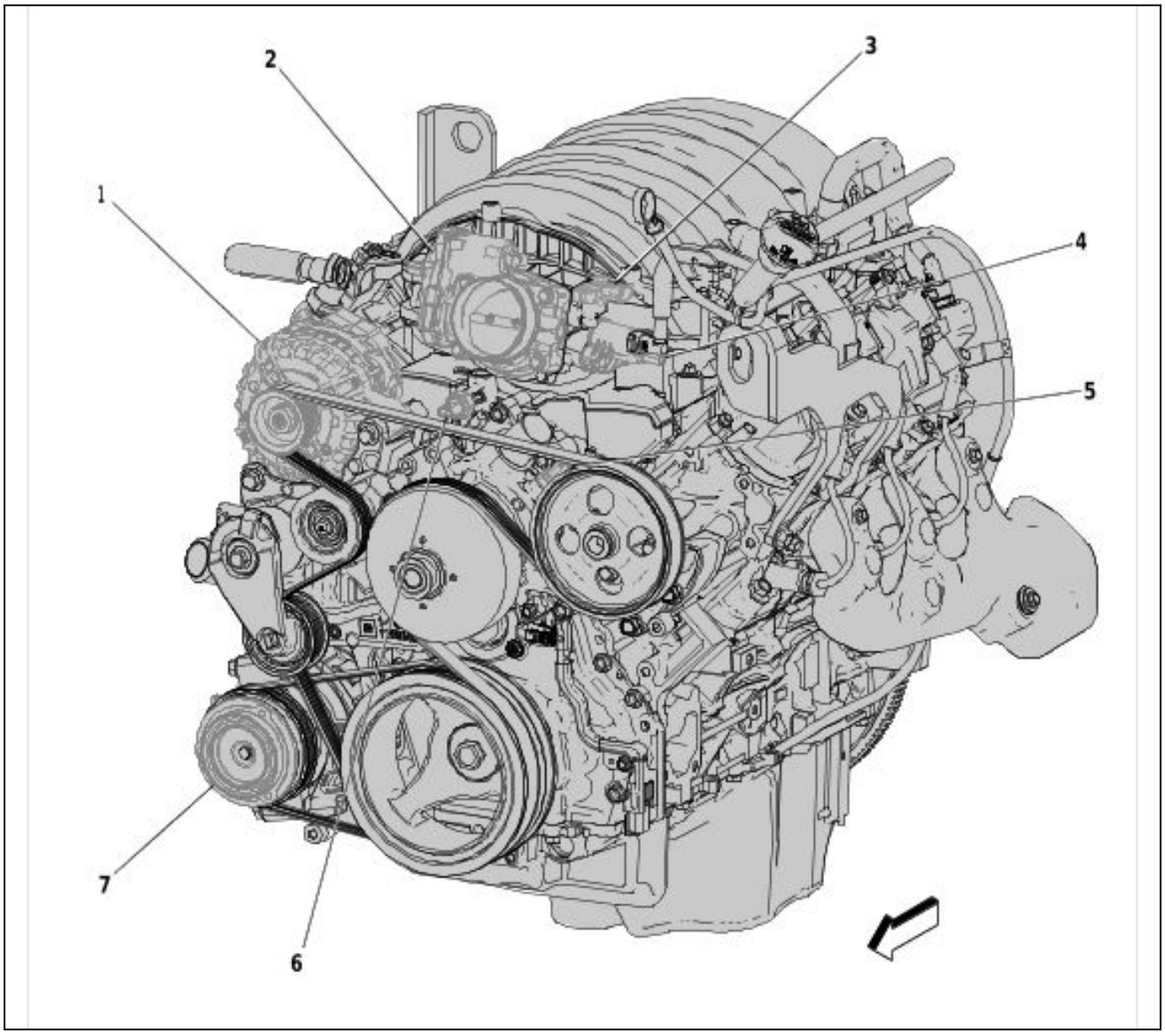


6003006

Items
(1) Q17B Fuel Injector 2 Q17B Fuel Injector 2
(2) T8B Ignition Coil 2 T8B Ignition Coil 2
(3) Q17D Fuel Injector 4 Q17D Fuel Injector 4
(4) T8D Ignition Coil 4 T8D Ignition Coil 4
(5) T8F Ignition Coil 6 T8F Ignition Coil 6
(6) Q17F Fuel Injector 6 Q17F Fuel Injector 6
(7) G18 High Pressure Fuel Pump G18 High Pressure Fuel Pump

Items
(8) B47B Fuel Rail Pressure Sensor B47B Fuel Rail Pressure Sensor
(9) Q17E Fuel Injector 5 Q17E Fuel Injector 5
(10) T8E Ignition Coil 5 T8E Ignition Coil 5
(11) Q17C Fuel Injector 3 Q17C Fuel Injector 3
(12) T8C Ignition Coil 3 T8C Ignition Coil 3
(13) T8A Ignition Coil 1 T8A Ignition Coil 1
(14) Q17A Fuel Injector 1 Q17A Fuel Injector 1

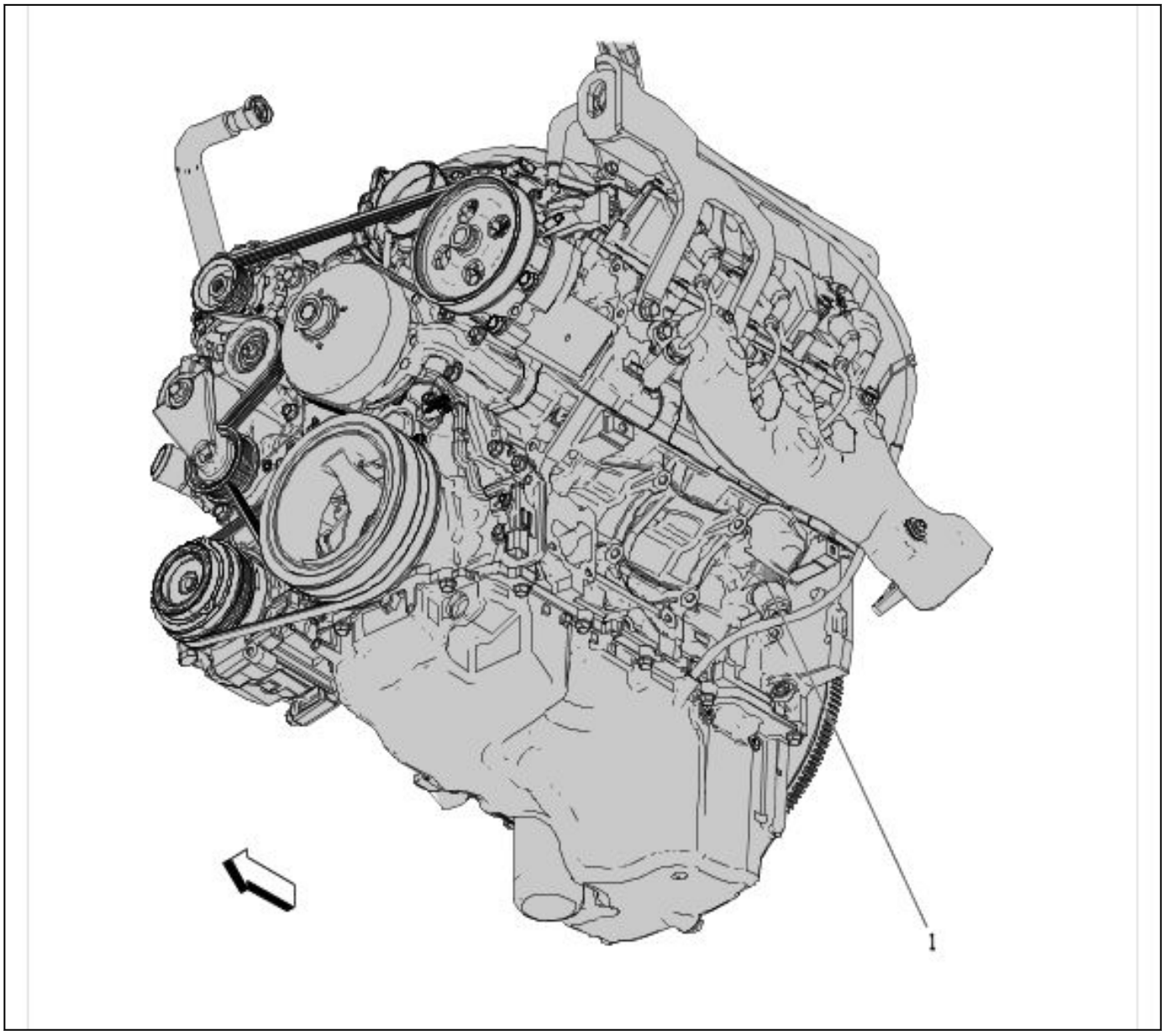
Front of the Engine Components (LV1)



6003007

Items
(1) G13 Generator (LV1/L8T/K68/KG4/KW5)
G13 Generator X1 (L8T) G13 Generator X1 (LV1) G13 Generator X2 (K68) G13 Generator X2 (KG4) G13 Generator X2 (KW5)
(2) Q38 Throttle Body
Q38 Throttle Body
(3) B74 Manifold Absolute Pressure Sensor
B74 Manifold Absolute Pressure Sensor
(4) Q12 Evaporative Emission Purge Solenoid Valve
Q12 Evaporative Emission Purge Solenoid Valve
(5) B34 Engine Coolant Temperature Sensor (L8T/LV1)
B34 Engine Coolant Temperature Sensor (L8T) B34 Engine Coolant Temperature Sensor (LV1)
(6) B37B Engine Oil Pressure Sensor
B37B Engine Oil Pressure Sensor
(7) Q2 A/C Compressor Clutch
Q2 A/C Compressor Clutch

Lower Right Rear of the Engine Components (LV1)

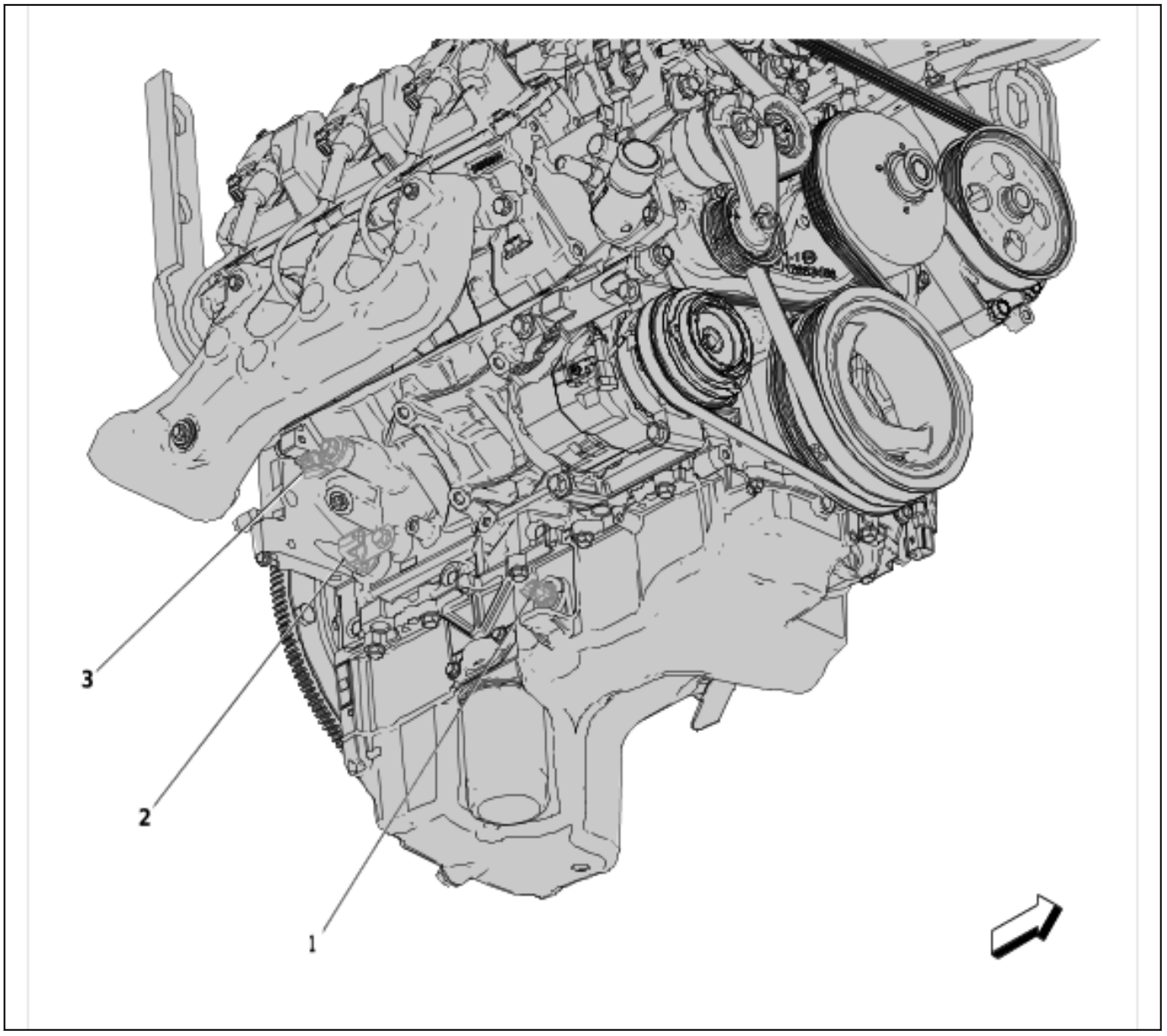


6003008

Items
(1) B68A Knock Sensor 1

B68A Knock Sensor 1

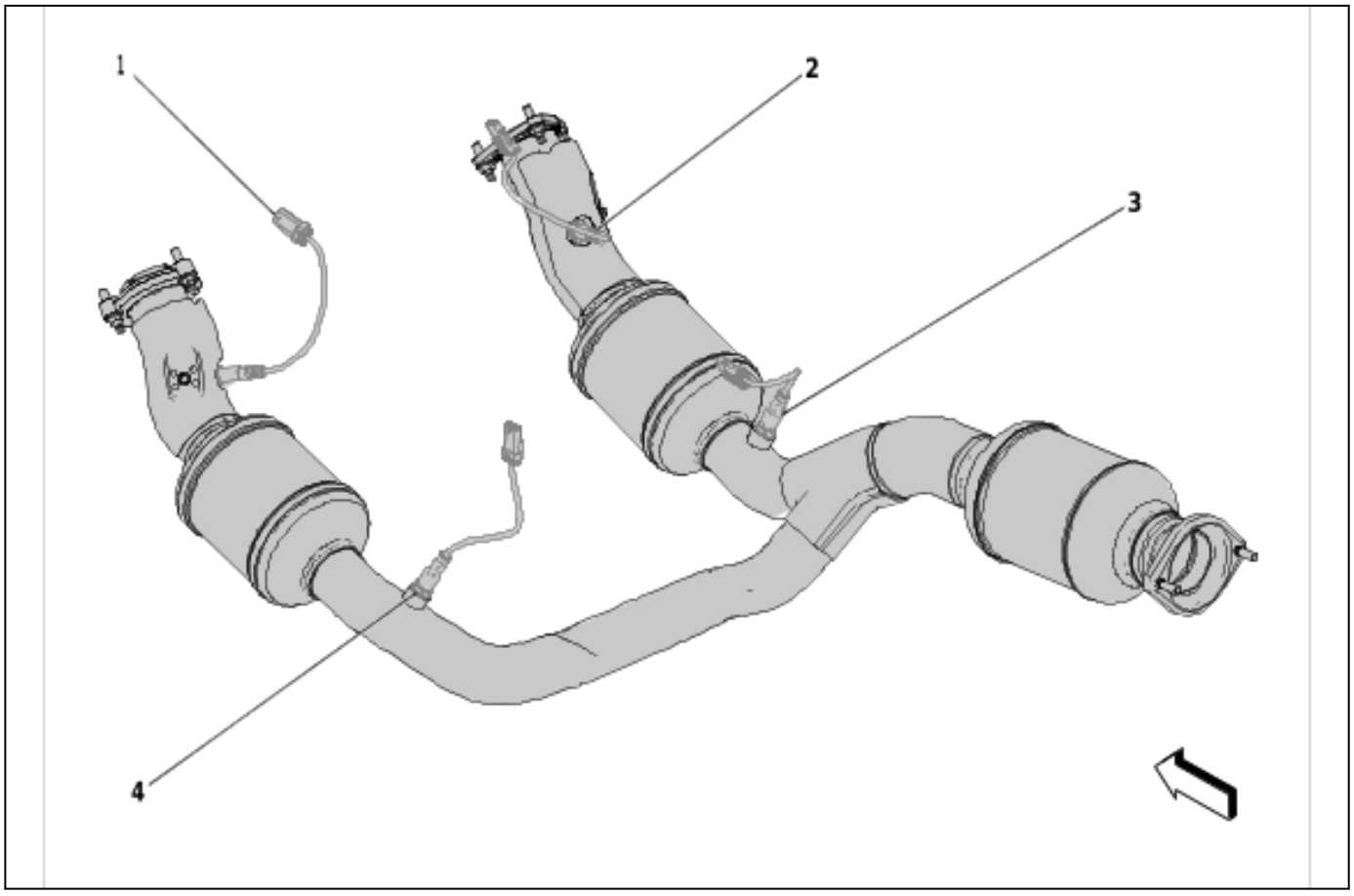
Lower Left Rear of the Engine Components (LV1)



6003010

Items
(1) B35 Engine Oil Level Switch (L8T/LV1) B35 Engine Oil Level Switch (L8T) B35 Engine Oil Level Switch (LV1)
(2) B26 Crankshaft Position Sensor B26 Crankshaft Position Sensor
(3) B68B Knock Sensor 2 B68B Knock Sensor 2

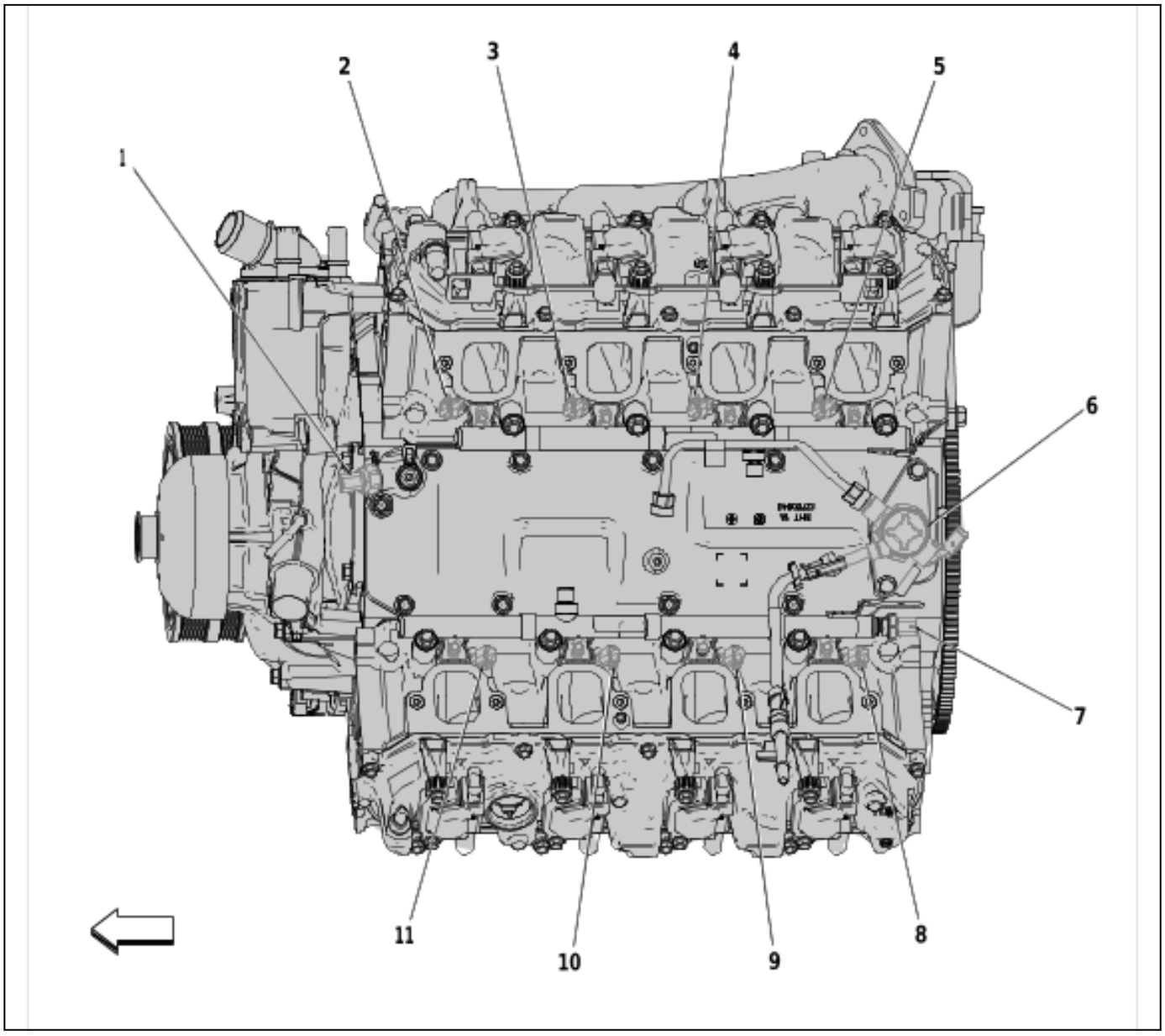
Rear of the Engine Components (LV1)



6003011

Items
(1) B52C Heated Oxygen Sensor - Bank 1 Sensor 1 B52C Heated Oxygen Sensor - Bank 1 Sensor 1
(2) B52E Heated Oxygen Sensor - Bank 2 Sensor 1 B52E Heated Oxygen Sensor - Bank 2 Sensor 1
(3) B52F Heated Oxygen Sensor - Bank 2 Sensor 2 B52F Heated Oxygen Sensor - Bank 2 Sensor 2
(4) B52D Heated Oxygen Sensor - Bank 1 Sensor 2 B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Top of Engine Components (L8T)

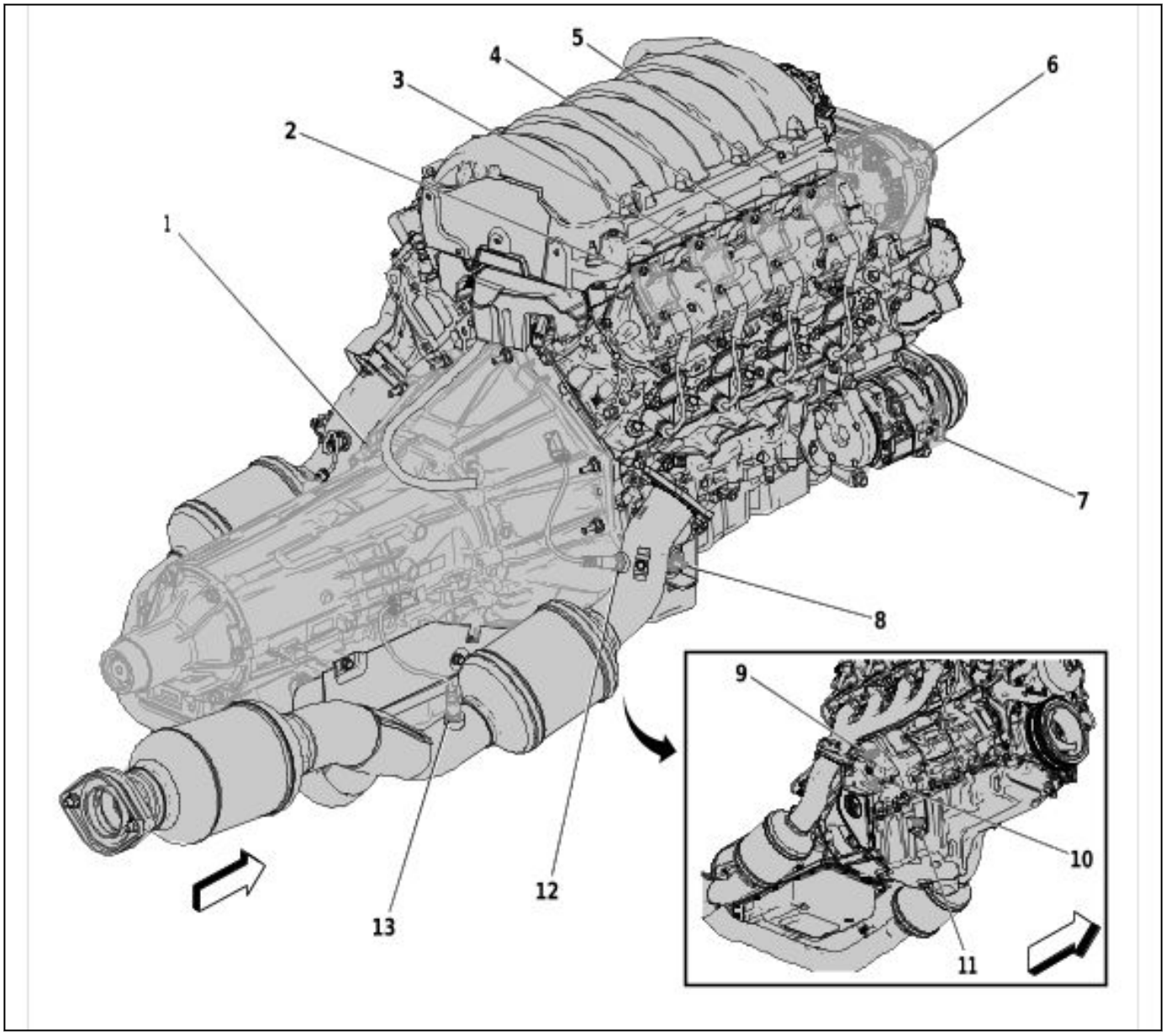


6040675

Items
(1) B37B Engine Oil Pressure Sensor B37B Engine Oil Pressure Sensor
(2) Q17B Fuel Injector 2 Q17B Fuel Injector 2
(3) Q17D Fuel Injector 4 Q17D Fuel Injector 4
(4) Q17F Fuel Injector 6 Q17F Fuel Injector 6
(5) Q17H Fuel Injector 8 (L8T) Q17H Fuel Injector 8 (L8T)
(6) G18 High Pressure Fuel Pump G18 High Pressure Fuel Pump
(7) B47B Fuel Rail Pressure Sensor B47B Fuel Rail Pressure Sensor

Items
(8) Q17G Fuel Injector 7 (L8T) Q17G Fuel Injector 7 (L8T)
(9) Q17E Fuel Injector 5 Q17E Fuel Injector 5
(10) Q17C Fuel Injector 3 Q17C Fuel Injector 3
(11) Q17A Fuel Injector 1 Q17A Fuel Injector 1

Left Side of the Engine Components (L8T)

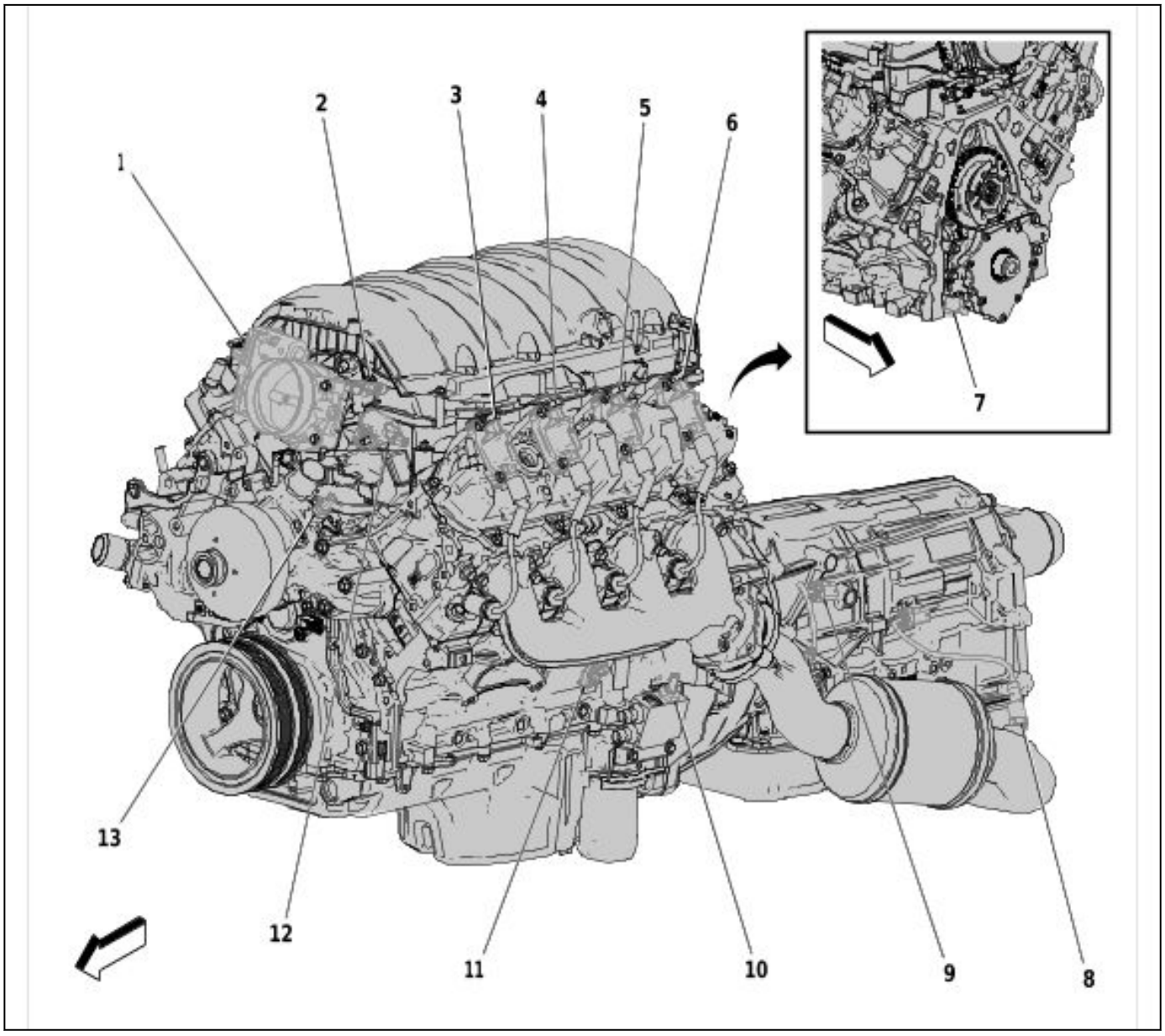


6040676

Items
(1) T12 Automatic Transmission Assembly (L8T)
(2) T8H Ignition Coil 8 (L8T) T8H Ignition Coil 8 (L8T)

Items
(3) T8F Ignition Coil 6
T8F Ignition Coil 6
(4) T8D Ignition Coil 4
T8D Ignition Coil 4
(5) T8B Ignition Coil 2
T8B Ignition Coil 2
(6) G13 Generator (LV1/L8T/K68/KG4/KW5)
G13 Generator X1 (L8T) G13 Generator X1 (LV1) G13 Generator X2 (K68) G13 Generator X2 (KG4) G13 Generator X2 (KW5)
(7) Q2 A/C Compressor Clutch
Q2 A/C Compressor Clutch
(8) B35 Engine Oil Level Switch (L8T/LV1)
B35 Engine Oil Level Switch (L8T) B35 Engine Oil Level Switch (LV1)
(9) B68B Knock Sensor 2
B68B Knock Sensor 2
(10) B26 Crankshaft Position Sensor
B26 Crankshaft Position Sensor
(11) B35 Engine Oil Level Switch (L8T/LV1)
B35 Engine Oil Level Switch (L8T) B35 Engine Oil Level Switch (LV1)
(12) B52E Heated Oxygen Sensor - Bank 2 Sensor 1
B52E Heated Oxygen Sensor - Bank 2 Sensor 1
(13) B52F Heated Oxygen Sensor - Bank 2 Sensor 2
B52F Heated Oxygen Sensor - Bank 2 Sensor 2

Right Side of the Engine Components (L8T)

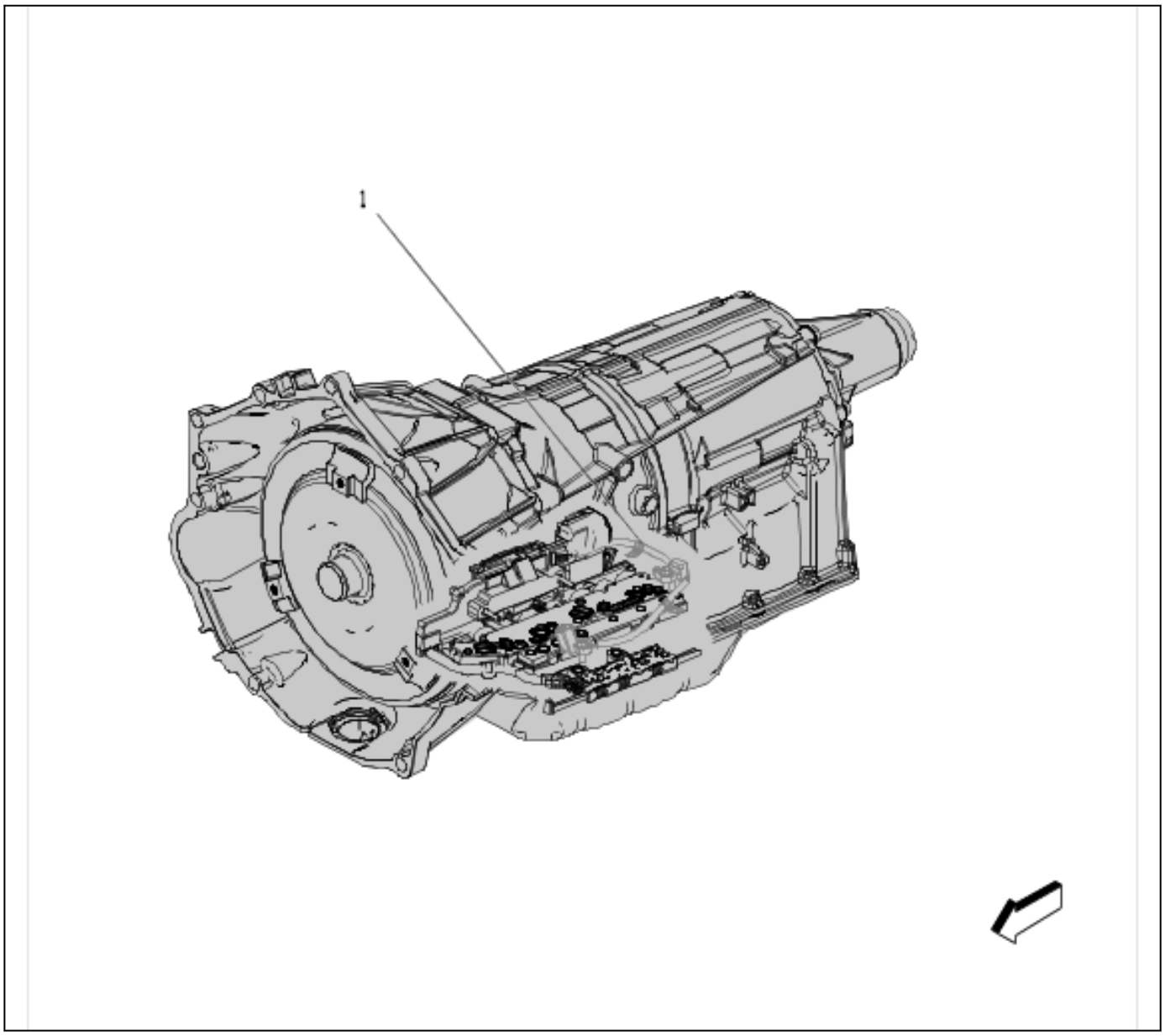


6040678

Items
(1) Q38 Throttle Body Q38 Throttle Body
(2) B74 Manifold Absolute Pressure Sensor B74 Manifold Absolute Pressure Sensor
(3) T8A Ignition Coil 1 T8A Ignition Coil 1
(4) T8C Ignition Coil 3 T8C Ignition Coil 3
(5) T8E Ignition Coil 5 T8E Ignition Coil 5
(6) T8G Ignition Coil 7 (L8T) T8G Ignition Coil 7 (L8T)
(7) Q44 Engine Oil Pressure Control Solenoid Valve (L8T) Q44 Engine Oil Pressure Control Solenoid Valve (L8T)

Items
(8) B52D Heated Oxygen Sensor - Bank 1 Sensor 2 B52D Heated Oxygen Sensor - Bank 1 Sensor 2
(9) B52C Heated Oxygen Sensor - Bank 1 Sensor 1 B52C Heated Oxygen Sensor - Bank 1 Sensor 1
(10) B36 Engine Oil Temperature Sensor (L8T) B36 Engine Oil Temperature Sensor (L8T)
(11) B68A Knock Sensor 1 B68A Knock Sensor 1
(12) Q12 Evaporative Emission Purge Solenoid Valve Q12 Evaporative Emission Purge Solenoid Valve
(13) B34 Engine Coolant Temperature Sensor (L8T/LV1) B34 Engine Coolant Temperature Sensor (L8T) B34 Engine Coolant Temperature Sensor (LV1)

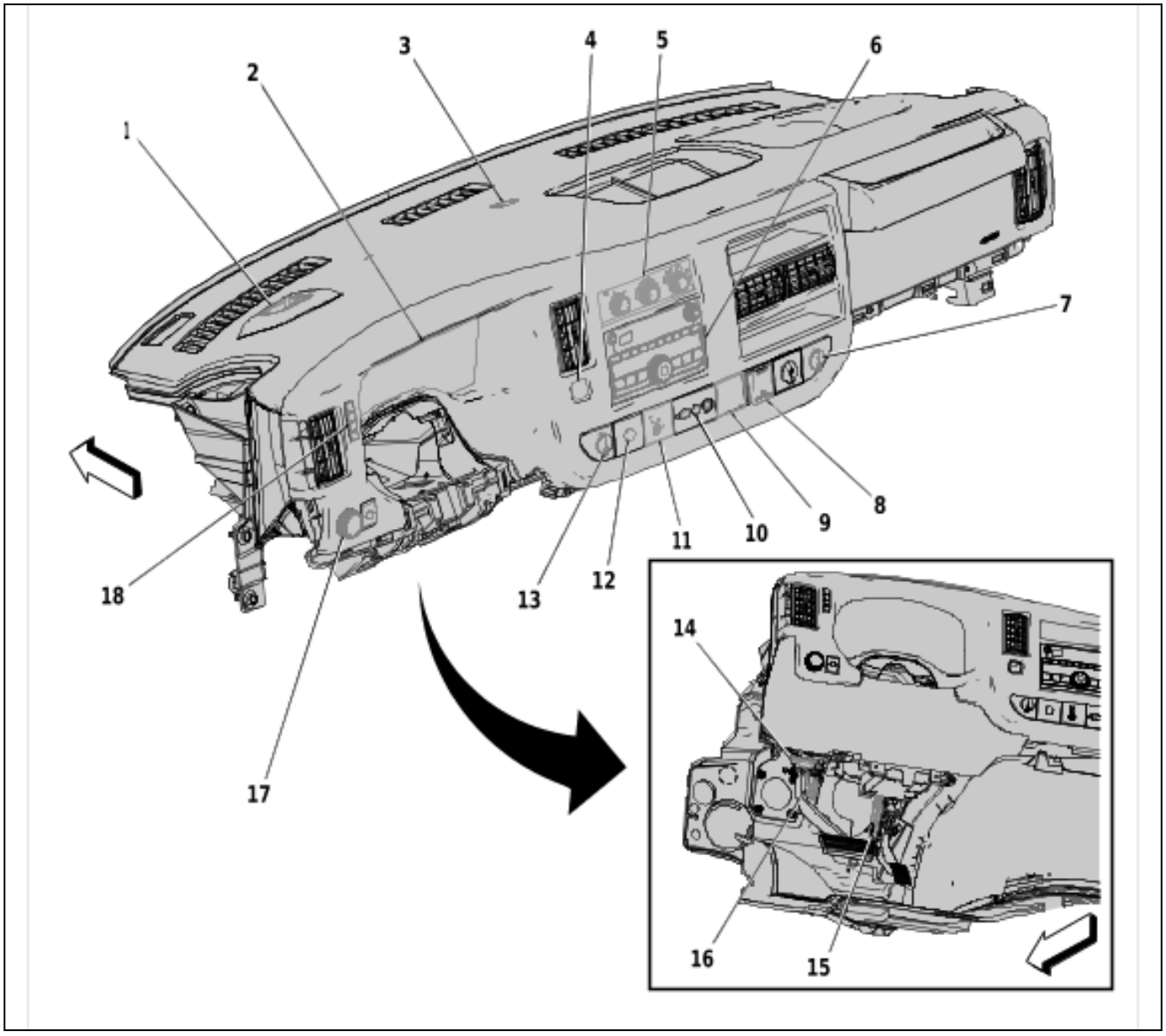
Automatic Transmission Internal Electrical Components



6326441

Items
(1) B14A Transmission Output Shaft Speed Sensor

Instrument Panel Components - 1 of 2

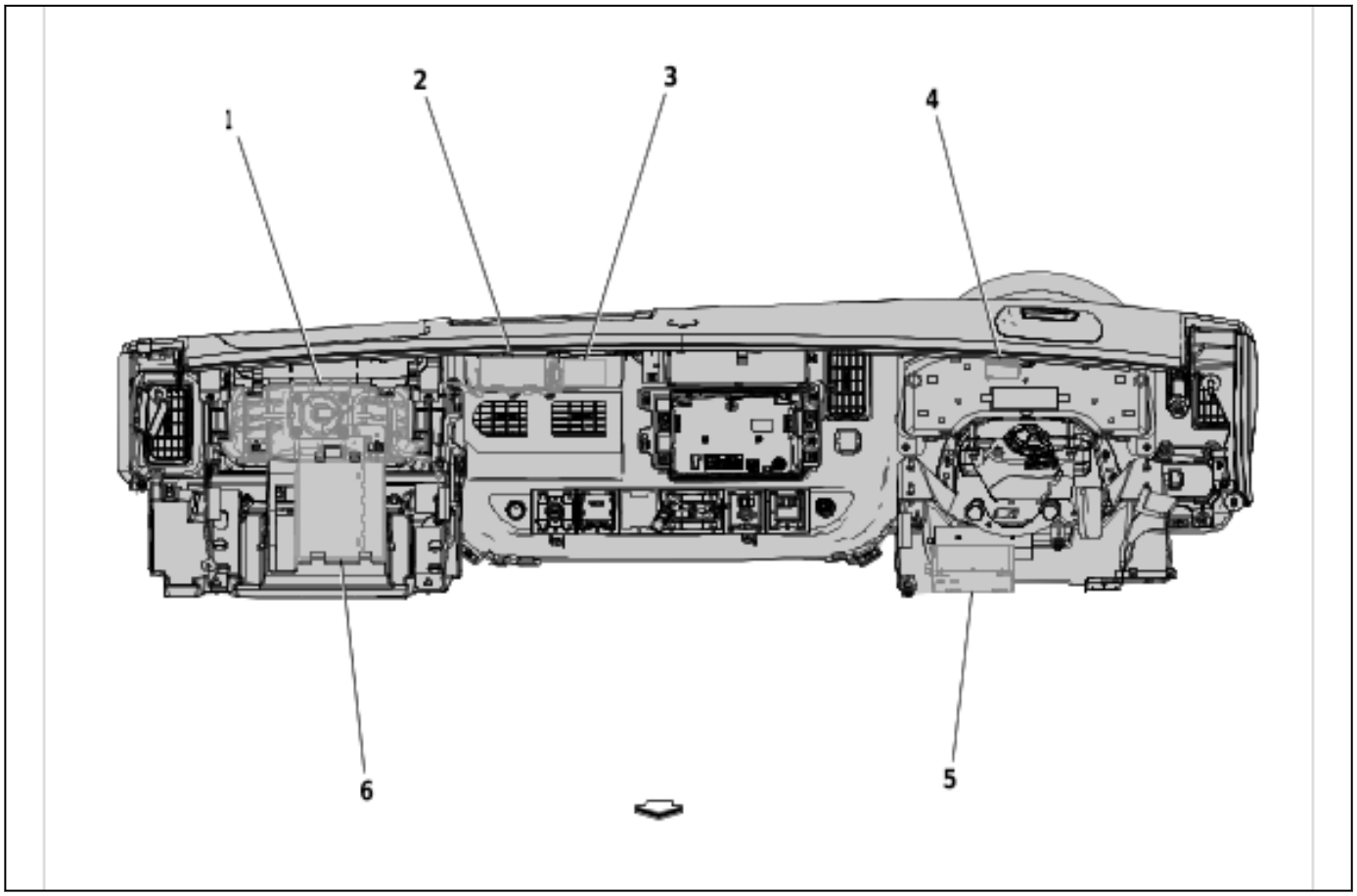


6505748

Items
(1) P43 Collision Alert Indicators P43 Collision Alert Indicators
(2) P16 Instrument Cluster P16 Instrument Cluster
(3) B10 Ambient Light Sensor B10 Ambient Light Sensor
(4) S74 Tow/Haul Mode Switch S74 Tow/Haul Mode Switch

Items
(5) S34 HVAC Controls Switch Assembly
S34 HVAC Controls Switch Assembly X1 S34 HVAC Controls Switch Assembly X2 S34 HVAC Controls Switch Assembly X3 S34 HVAC Controls Switch Assembly X4
(6) A11 Radio
A11 Radio X1 A11 Radio X2 A11 Radio X3
(7) X80B Accessory Power Receptacle - Center Console 2
X80B Accessory Power Receptacle - Center Console 2
(8) X81 Accessory Power Receptacle - 110V AC (KI4)
X81 Accessory Power Receptacle - 110V AC X1 (KI4) X81 Accessory Power Receptacle - 110V AC X2 (KI4)
(9) S155 Lane Departure Warning Switch
S155 Lane Departure Warning Switch
(10) S51 Telematics Button Assembly
S51 Telematics Button Assembly
(11) S40 Passenger Air Bag Disable Switch
S40 Passenger Air Bag Disable Switch
(12) X84 Data Link Connector
X84 Data Link Connector
(13) X80A Accessory Power Receptacle - Center Console 1
X80A Accessory Power Receptacle - Center Console 1
(14) X84 Data Link Connector
X84 Data Link Connector
(15) B107 Accelerator Pedal Position Sensor
B107 Accelerator Pedal Position Sensor
(16) B22 Brake Pedal Position Sensor
B22 Brake Pedal Position Sensor
(17) S30 Headlamp Switch
S30 Headlamp Switch
(18) S16 Driver Information Center Switch
S16 Driver Information Center Switch

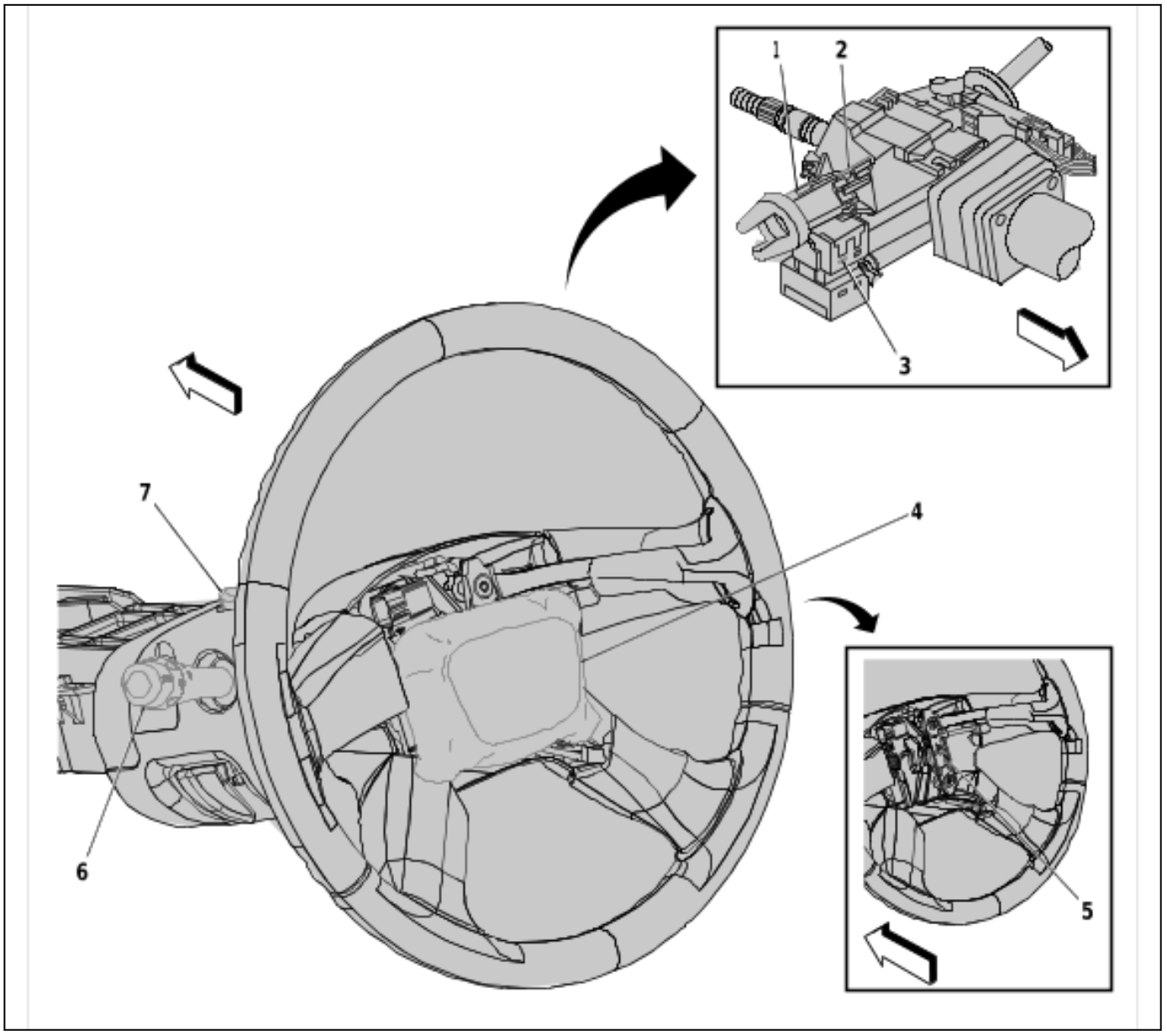
Instrument Panel Components - 2 of 2



6505749

Items
(1) F101 Passenger Instrument Panel Air Bag
F101 Passenger Instrument Panel Air Bag
(2) T1 Accessory DC/AC Power Inverter Module
T1 Accessory DC/AC Power Inverter Module
(3) K182 Parking Assist Control Module (UD7)
K182 Parking Assist Control Module X1 (UD7) K182 Parking Assist Control Module X2 (UD7)
(4) K77 Remote Control Door Lock Receiver
K77 Remote Control Door Lock Receiver
(5) K73 Telematics Communication Interface Control Module
K73 Telematics Communication Interface Control Module X1 K73 Telematics Communication Interface Control Module X2
(6) K9 Body Control Module
K9 Body Control Module X1 K9 Body Control Module X2 K9 Body Control Module X3 K9 Body Control Module X4 K9 Body Control Module X5 K9 Body Control Module X6 K9 Body Control Module X7

Steering Column Components - 1 of 2

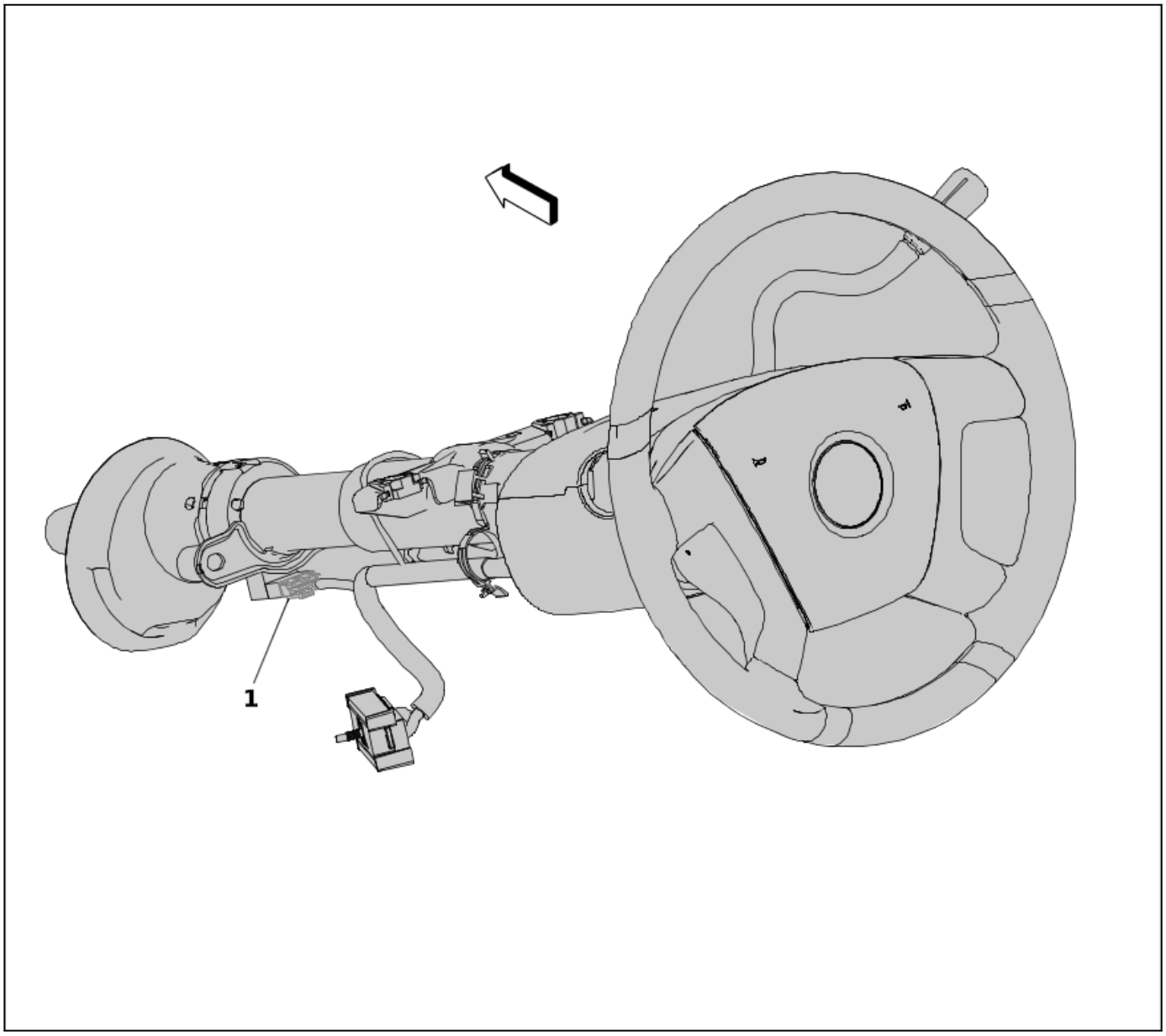


6385159

Items
(1) K64 Content Theft Deterrent Control Module K64 Content Theft Deterrent Control Module
(2) M7 Transmission Shift Lock Control Solenoid Actuator M7 Transmission Shift Lock Control Solenoid Actuator
(3) S39 Ignition Switch S39 Ignition Switch
(4) F107 Steering Wheel Air Bag F107 Steering Wheel Air Bag
(5) S33 Horn Switch S33 Horn Switch

Items
(6) S78 Turn Signal/Multifunction Switch S78 Turn Signal/Multifunction Switch X1 S78 Turn Signal/Multifunction Switch X2 S78 Turn Signal/Multifunction Switch X3
(7) S26 Hazard Warning Switch

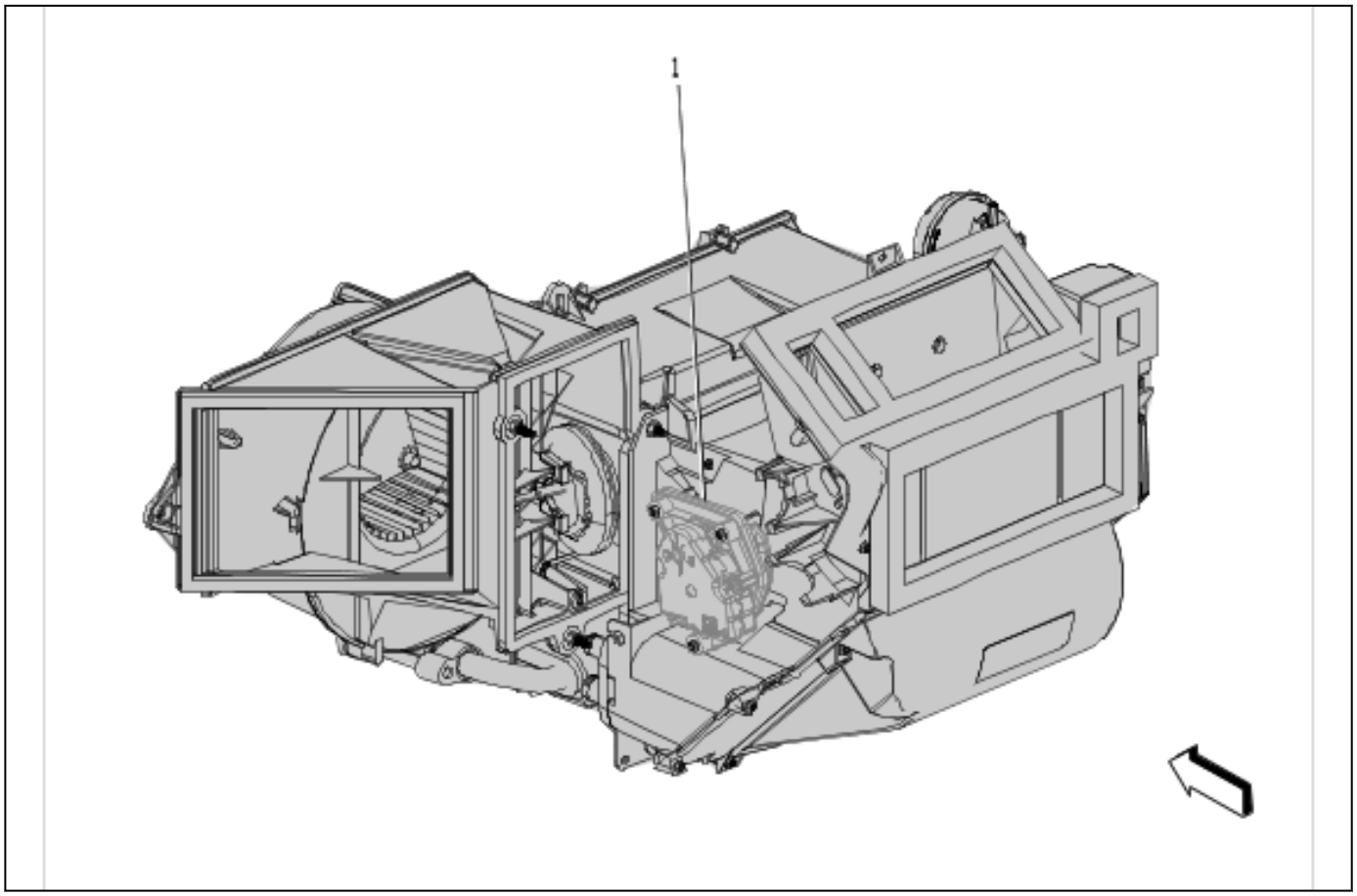
Steering Column Components - 2 of 2



4004007

Items
(1) B99 Steering Wheel Angle Sensor B99 Steering Wheel Angle Sensor

HVAC Case Components

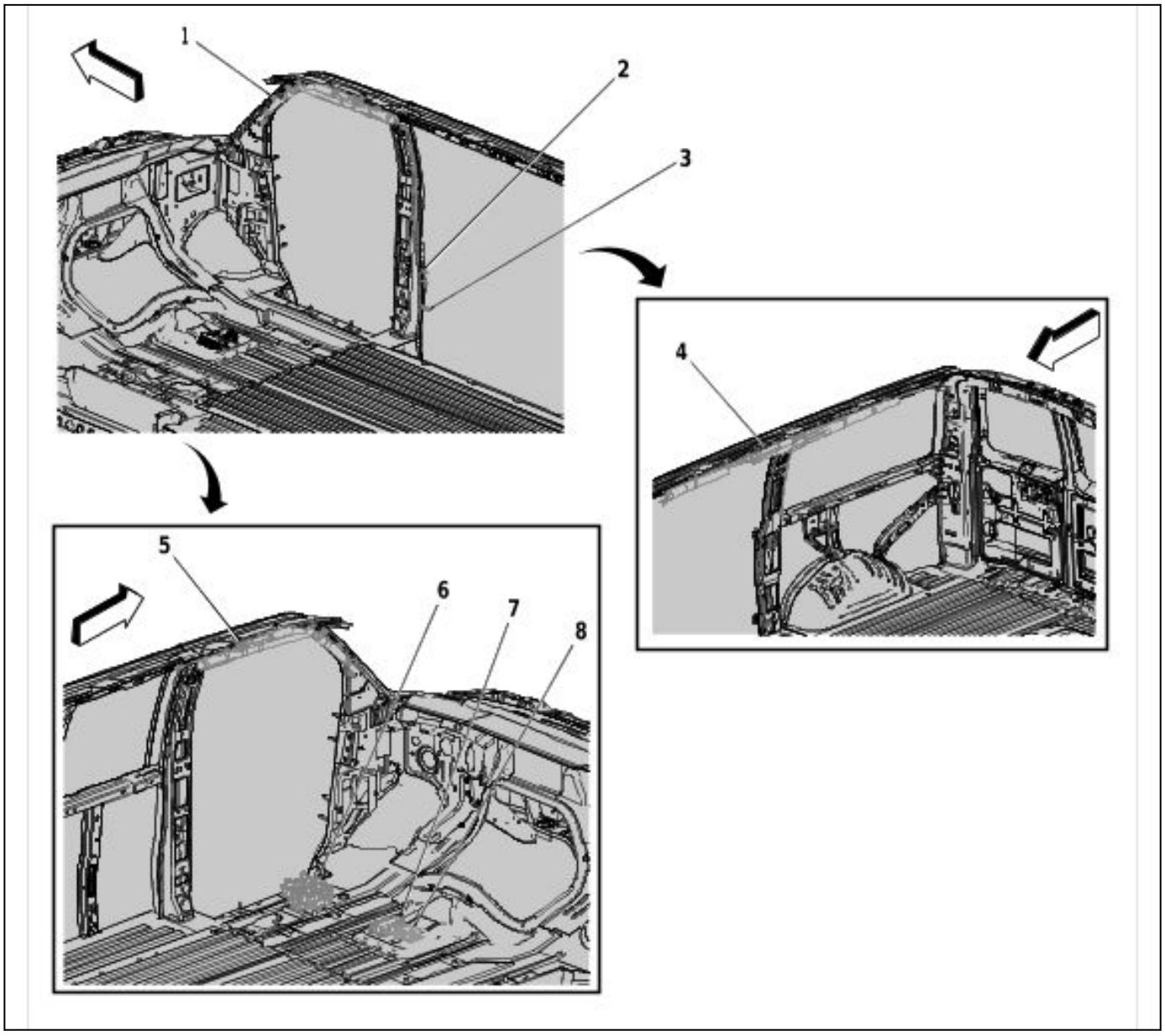


6043575

Items
(1) M6 Air Temperature Door Actuator

M6 Air Temperature Door Actuator

Passenger Compartment Components

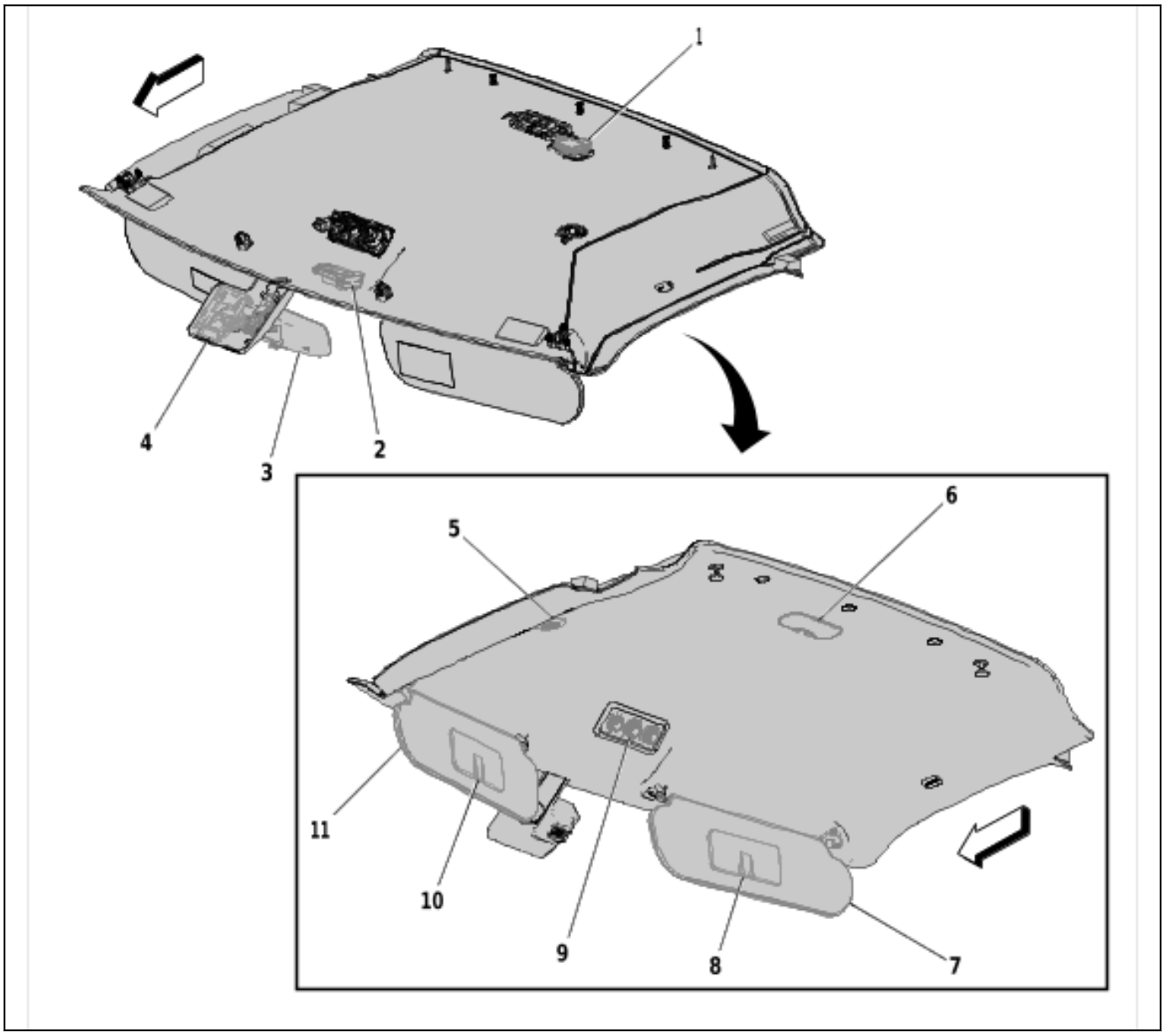


6003018

Items
(1) F105RF Roof Rail Air Bag - Right Front (ASF) F105RF Roof Rail Air Bag - Right Front (ASF)
(2) X87RB Sliding Door Jamb Contact Plate - Right Body ((Cutaway)/(Cargo/Passenger)) X87RB Sliding Door Jamb Contact Plate - Right Body (Body) X87RB Sliding Door Jamb Contact Plate - Right Body (Door)
(3) B28F Door Ajar Switch - Right Sliding (Cargo/ Passenger) B28F Door Ajar Switch - Right Sliding
(4) F105RR Roof Rail Air Bag - Right Rear (ASF) F105RR Roof Rail Air Bag - Right Rear (ASF)
(5) F105LF Roof Rail Air Bag - Left Front (ASF) F105LF Roof Rail Air Bag - Left Front (ASF)

Items
(6) X52A Fuse Block - Passenger Compartment
(7) K36 Inflatable Restraint Sensing and Diagnostic Module K36 Inflatable Restraint Sensing and Diagnostic Module X1 K36 Inflatable Restraint Sensing and Diagnostic Module X2
(8) B176 Multi-axis Acceleration Sensor Module B176 Multi-axis Acceleration Sensor Module

Headliner Components - Front

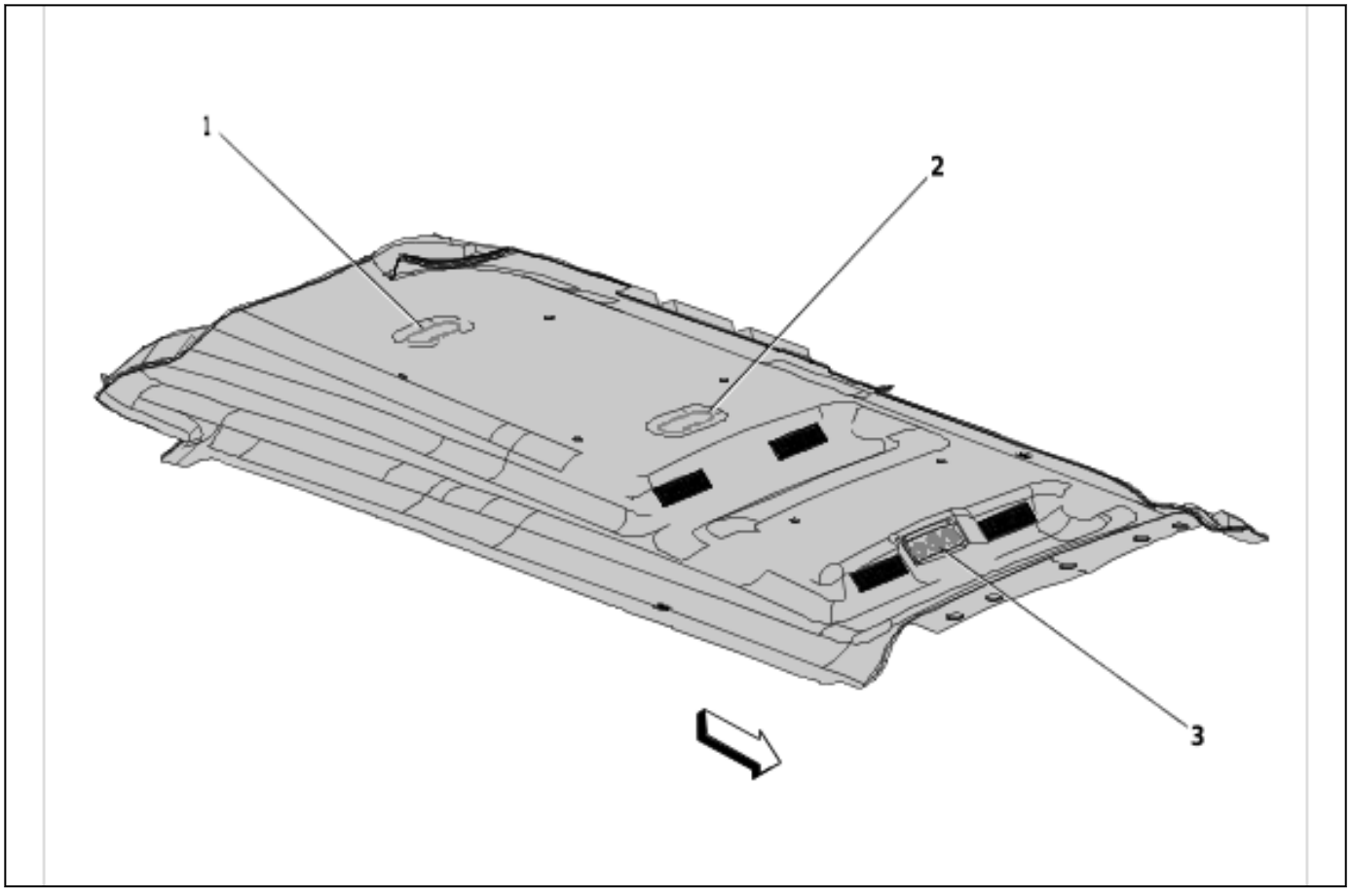


6003016

Items
(1) K18 Compass Module (U80) K18 Compass Module (U80)
(2) K33A HVAC Control Module - Auxiliary K33A HVAC Control Module - Auxiliary

Items
(3) A10 Inside Rearview Mirror ((UEU/UFL)/-(UEU/UFL)) A10 Inside Rearview Mirror (- (UEU / UFL)) A10 Inside Rearview Mirror (UEU / UFL)
(4) B174W Frontview Camera - Windshield B174W Frontview Camera - Windshield
(5) B24 Mobile Telephone Microphone (UE1) B24 Mobile Telephone Microphone (UE1)
(6) E37F Dome/Reading Lamps - Front (Passenger) E37F Dome/Reading Lamps - Front - Passenger
(7) A3R Sunshade - Right (DH6) A3R Sunshade - Right (DH6)
(8) E31R Sunshade Mirror Lamp - Right (DH6)
(9) S34F HVAC Controls Switch Assembly - Auxiliary Front S34F HVAC Controls Switch Assembly - Auxiliary Front (With Rear HVAC Controls) S34F HVAC Controls Switch Assembly - Auxiliary Front (Without Rear HVAC Controls)
(10) E31L Sunshade Mirror Lamp - Left (DH6)
(11) A3L Sunshade - Left (DH6) A3L Sunshade - Left (DH6)

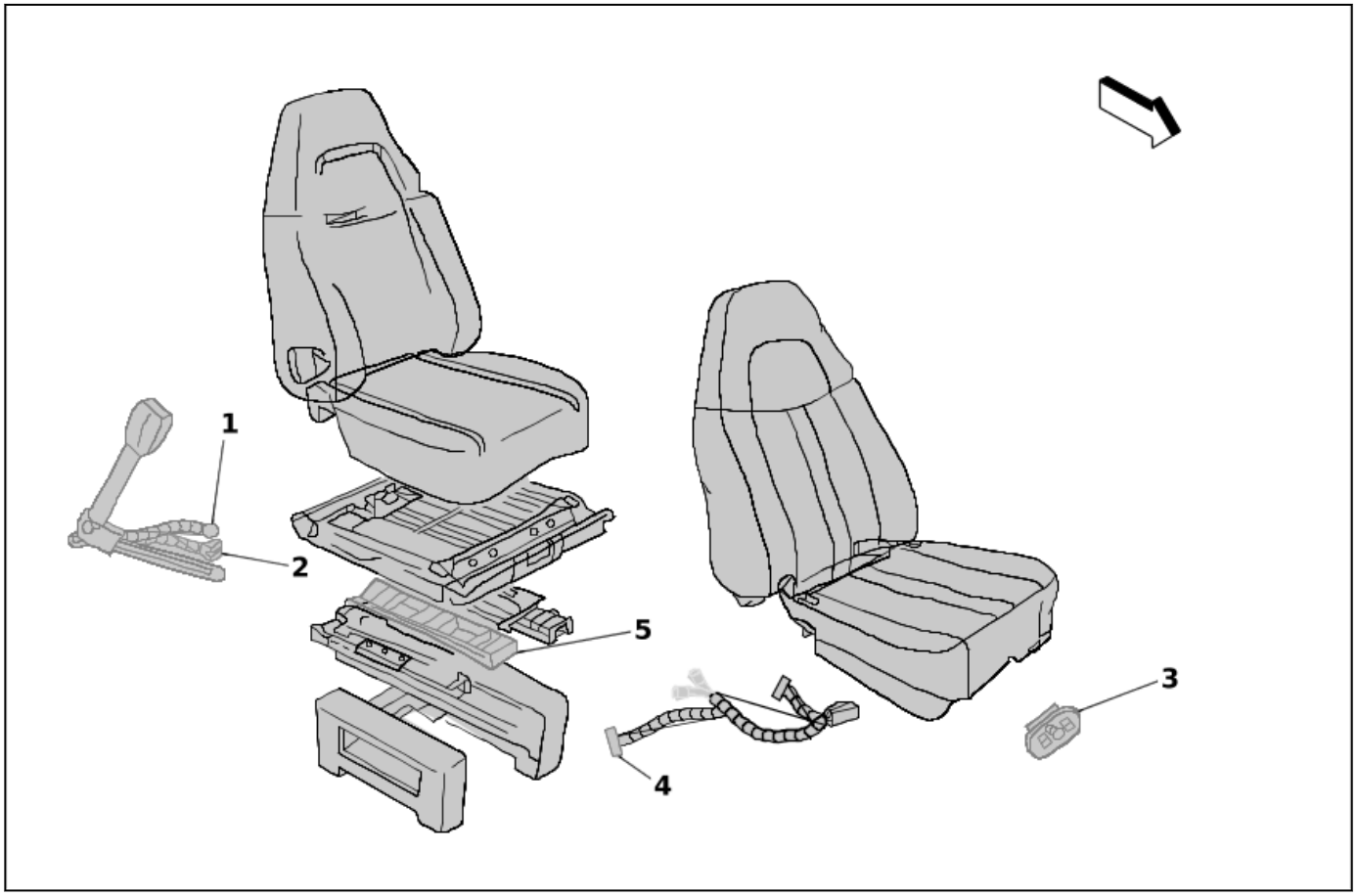
Headliner Components - Rear



6003017

Items
(1) E37R Dome/Reading Lamps - Rear (Passenger) E37R Dome/Reading Lamps - Rear - Passenger
(2) E37M Dome/Reading Lamps - Middle (Passenger) E37M Dome/Reading Lamps - Middle - Passenger
(3) S34R HVAC Controls Switch Assembly - Auxiliary Rear (C36/C69) S34R HVAC Controls Switch Assembly - Auxiliary Rear (C36 / C69)

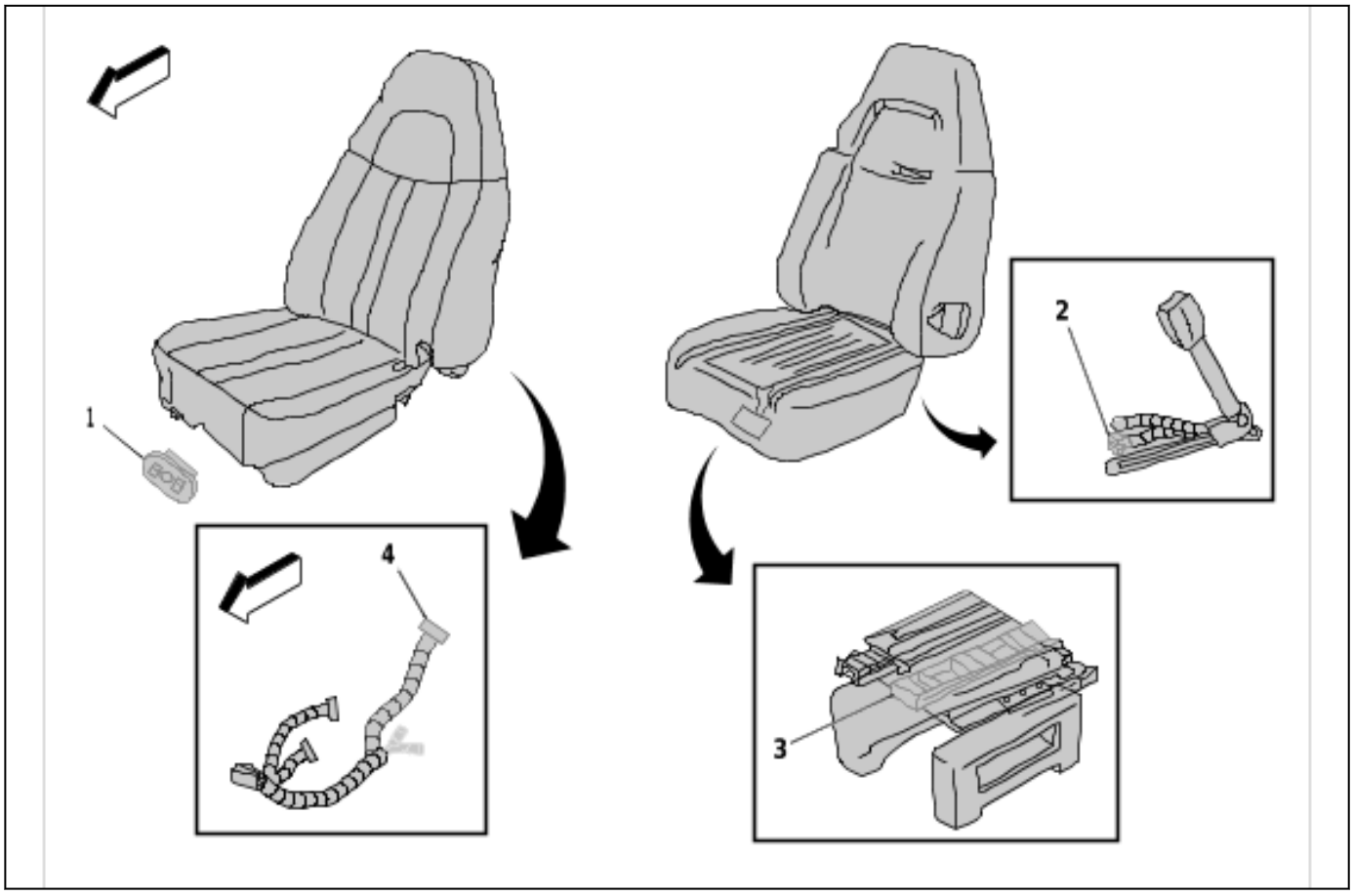
Driver Seat Components



4004063

Items
(1) B153D Seat Belt Buckle - Driver B153D Seat Belt Buckle - Driver
(2) F109D Seat Belt Buckle Pretensioner - Driver F109D Seat Belt Buckle Pretensioner - Driver
(3) S64D Seat Adjuster Switch - Driver (AG1) S64D Seat Adjuster Switch - Driver (AG1)
(4) X307 Body Wiring Harness to Seat Wiring Harness - Driver X307 Body Wiring Harness to Seat Wiring Harness - Driver
(5) M49D Seat Motor Assembly - Driver (AG1) M49D Seat Motor Assembly - Driver (AG1)

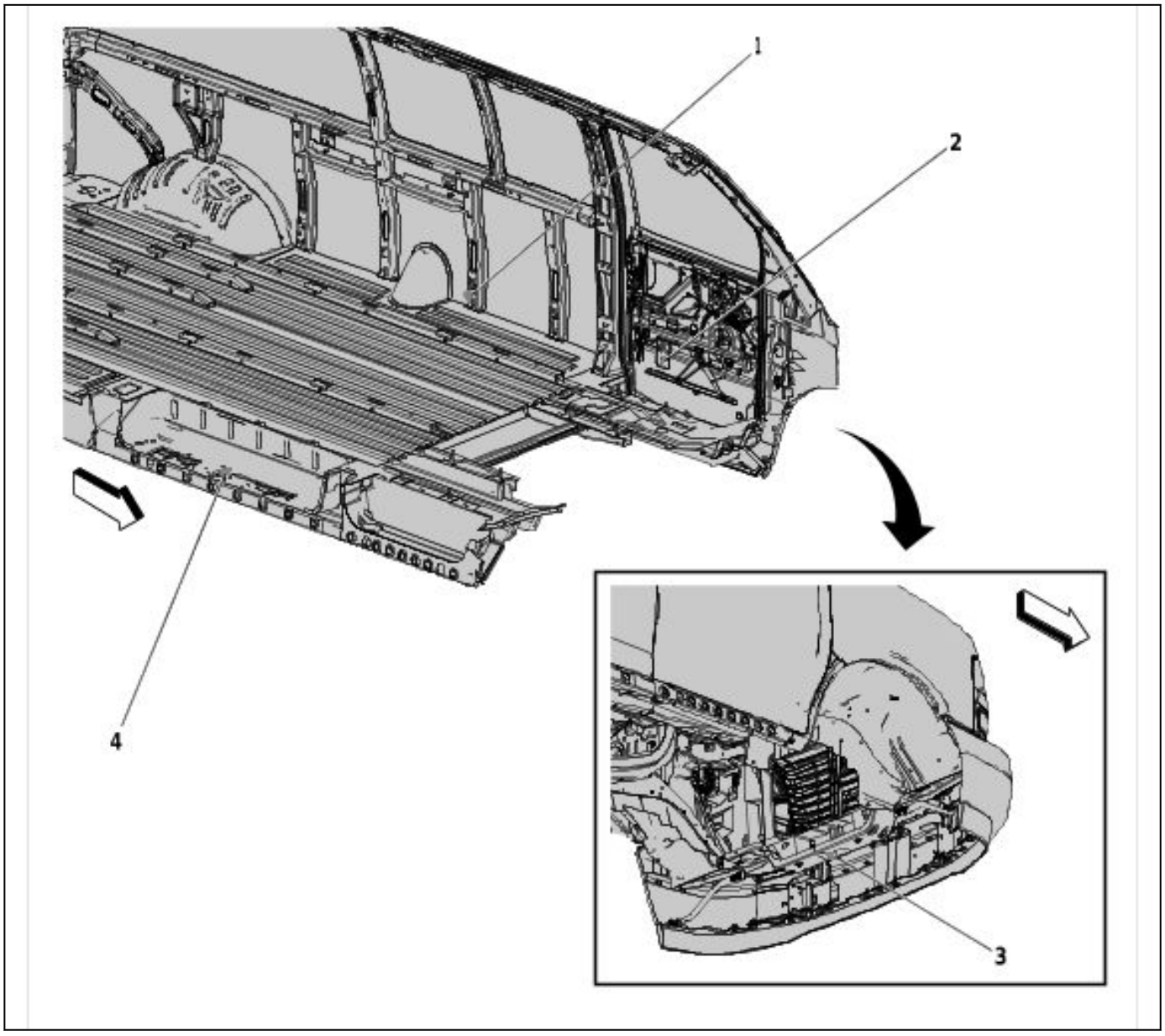
Passenger Seat Components



6326443

Items
(1) S64P Seat Adjuster Switch - Passenger (AG2) S64P Seat Adjuster Switch - Passenger (AG2)
(2) F109P Seat Belt Buckle Pretensioner - Passenger (AK5) F109P Seat Belt Buckle Pretensioner - Passenger (AK5)
(3) M49P Seat Motor Assembly - Passenger (AG2) M49P Seat Motor Assembly - Passenger (AG2)
(4) X306 Body Wiring Harness to Seat Wiring Harness - Passenger X306 Body Wiring Harness to Seat Wiring Harness - Passenger

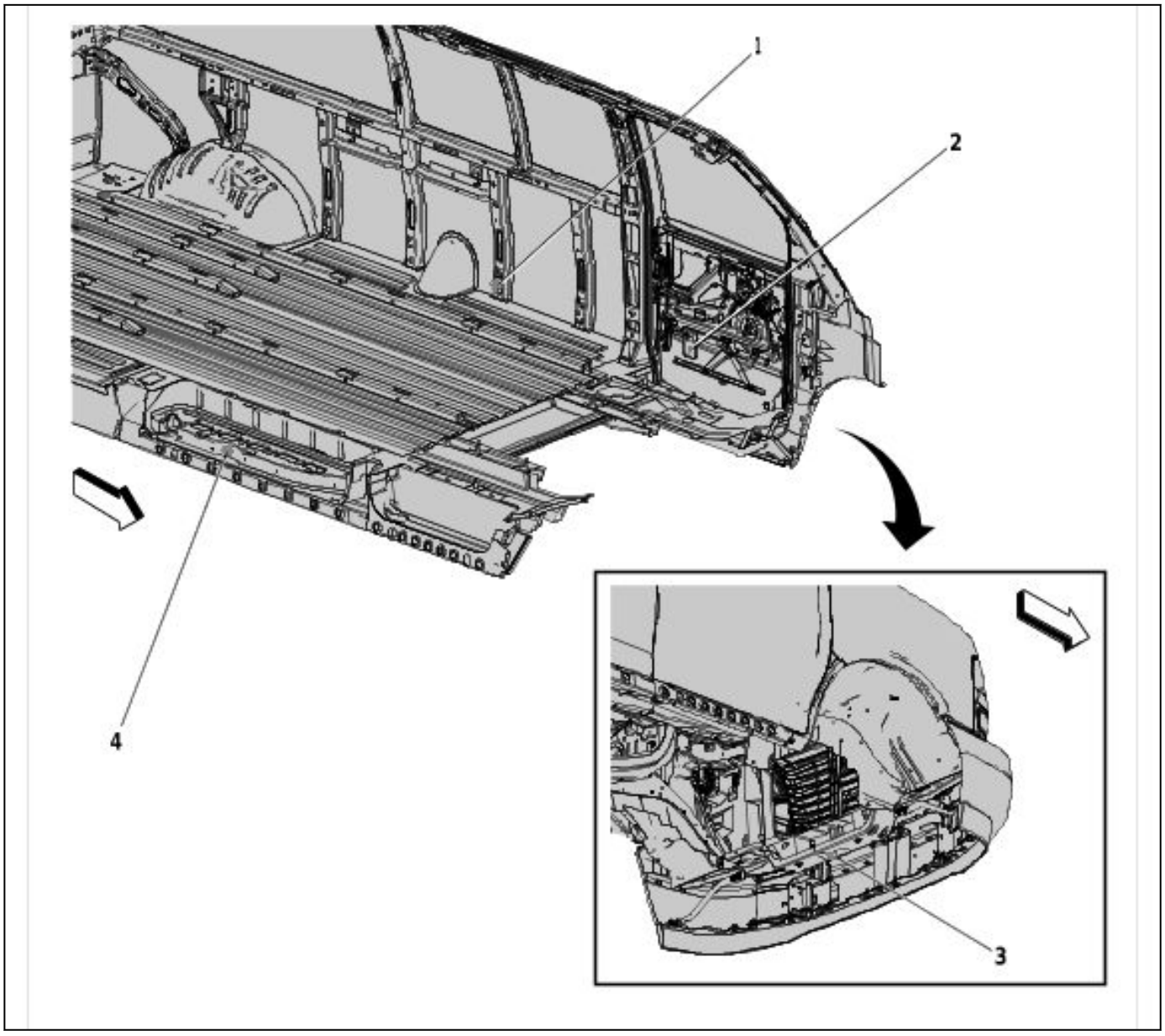
Airbag Impact Sensor Components (E24)



6003434

Items
(1) B63LR Side Impact Sensor - Left Rear (ASF) B63LR Side Impact Sensor - Left Rear (ASF)
(2) B63LF Side Impact Sensor - Left Front (ASF) B63LF Side Impact Sensor - Left Front (ASF)
(3) B59 Front Impact Sensor B59 Front Impact Sensor
(4) B63RR Side Impact Sensor - Right Rear (YA2/E24) B63RR Side Impact Sensor - Right Rear (E24) B63RR Side Impact Sensor - Right Rear (YA2)

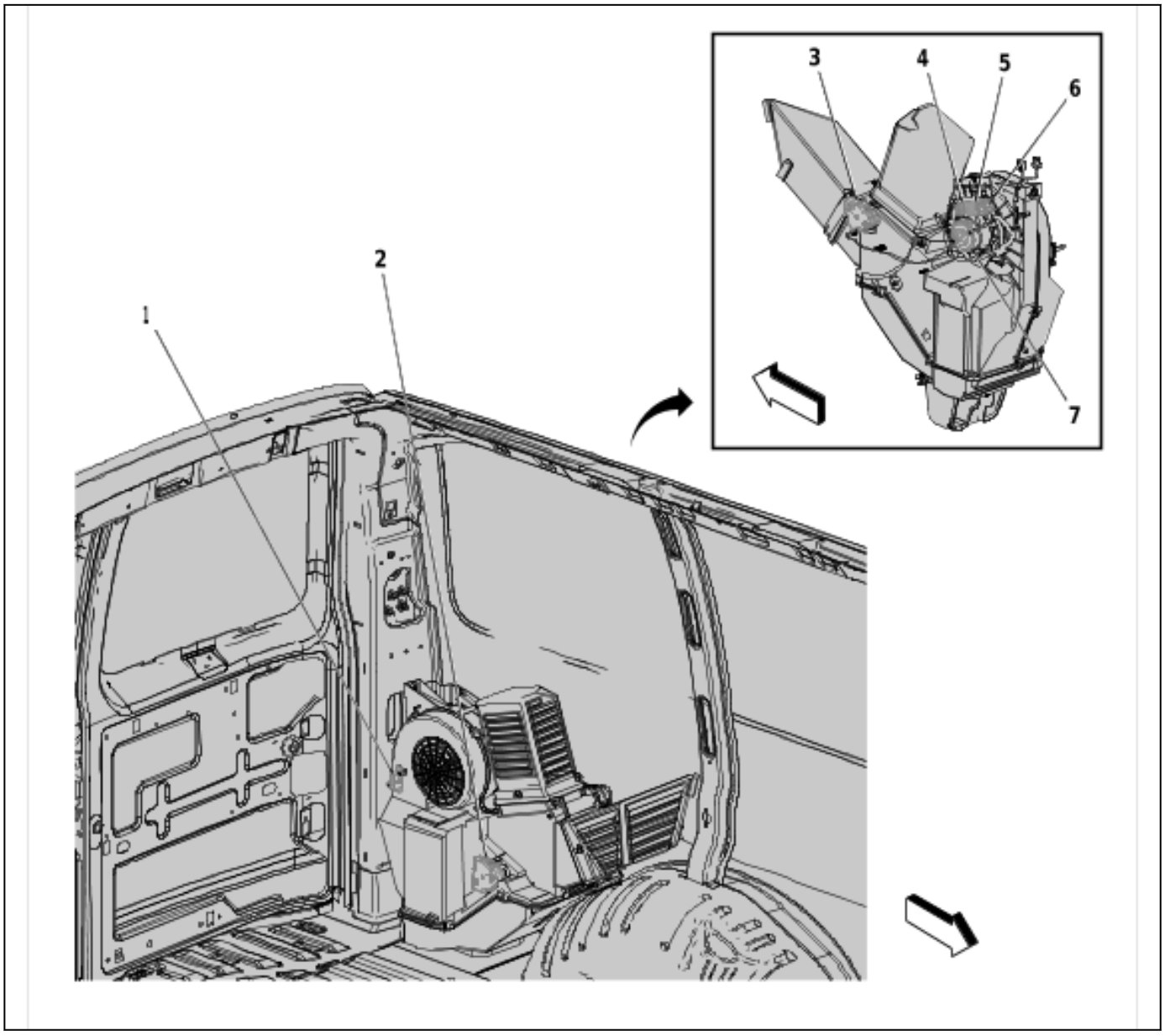
Airbag Impact Sensor Components (YA2)



6003435

Items
(1) B63LR Side Impact Sensor - Left Rear (ASF) B63LR Side Impact Sensor - Left Rear (ASF)
(2) B63LF Side Impact Sensor - Left Front (ASF) B63LF Side Impact Sensor - Left Front (ASF)
(3) B59 Front Impact Sensor B59 Front Impact Sensor
(4) B63RR Side Impact Sensor - Right Rear (YA2/E24) B63RR Side Impact Sensor - Right Rear (E24) B63RR Side Impact Sensor - Right Rear (YA2)

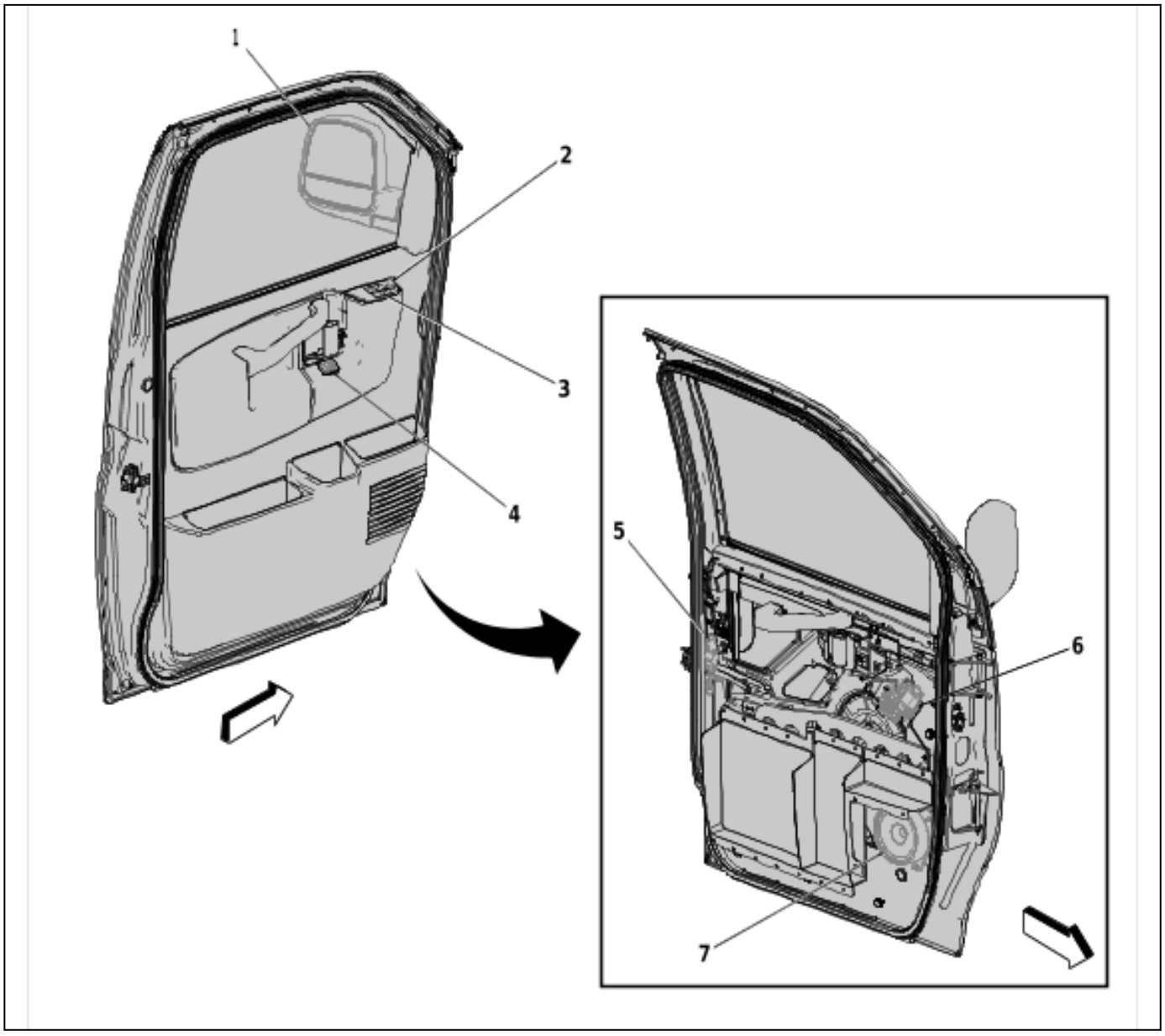
Auxiliary HVAC Components (C36 / C69)



6040683

Items
(1) R3B Blower Motor Resistor - Auxiliary (C36/C69) R3B Blower Motor Resistor - Auxiliary (C36 / C69)
(2) M6B Air Temperature Door Actuator - Auxiliary M6B Air Temperature Door Actuator - Auxiliary
(3) M37B Mode Door Actuator - Auxiliary M37B Mode Door Actuator - Auxiliary
(4) KR32B Blower Motor High Speed Relay - Auxiliary KR32B Blower Motor High Speed Relay - Auxiliary
(5) KR32D Blower Motor Medium Speed Relay - Auxiliary KR32D Blower Motor Medium Speed Relay - Auxiliary
(6) KR32C Blower Motor Low Speed Relay - Auxiliary KR32C Blower Motor Low Speed Relay - Auxiliary
(7) M6B Air Temperature Door Actuator - Auxiliary M6B Air Temperature Door Actuator - Auxiliary

Driver Door Components

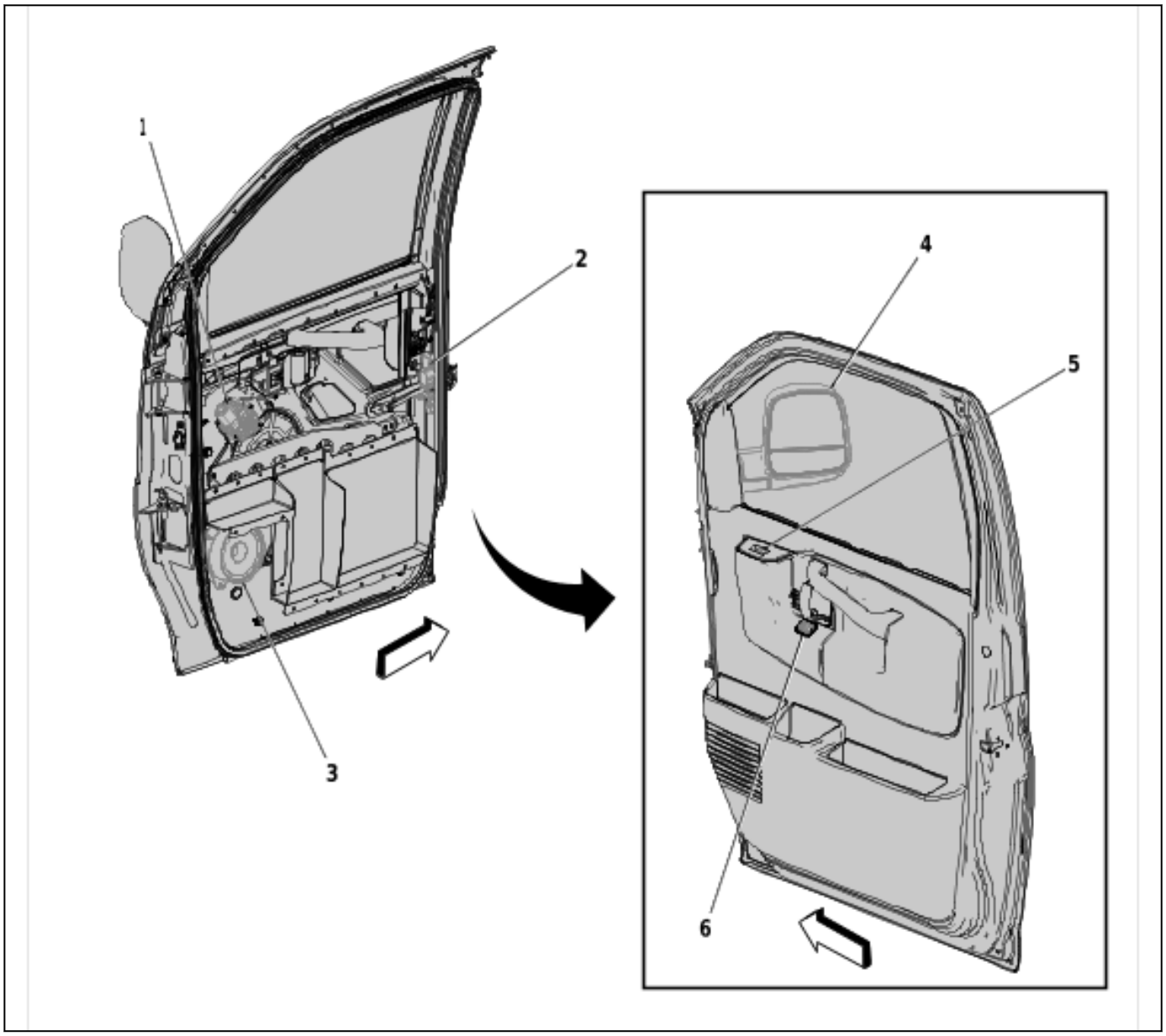


6003019

Items
(1) A9A Outside Rearview Mirror - Driver A9A Outside Rearview Mirror - Driver
(2) S52 Outside Rearview Mirror Switch (DE5) S52 Outside Rearview Mirror Switch (DE5)
(3) S79D Window Switch - Driver (A31) S79D Window Switch - Driver (A31)
(4) S13D Door Lock Switch - Driver (AU3) S13D Door Lock Switch - Driver (AU3)
(5) A23D Door Latch Assembly - Driver A23D Door Latch Assembly - Driver X1 A23D Door Latch Assembly - Driver X2

Items
(6) M74D Window Motor - Driver M74D Window Motor - Driver
(7) P19AG Speaker - Left Front Door P19AG Speaker - Left Front Door

Front Passenger Door Components

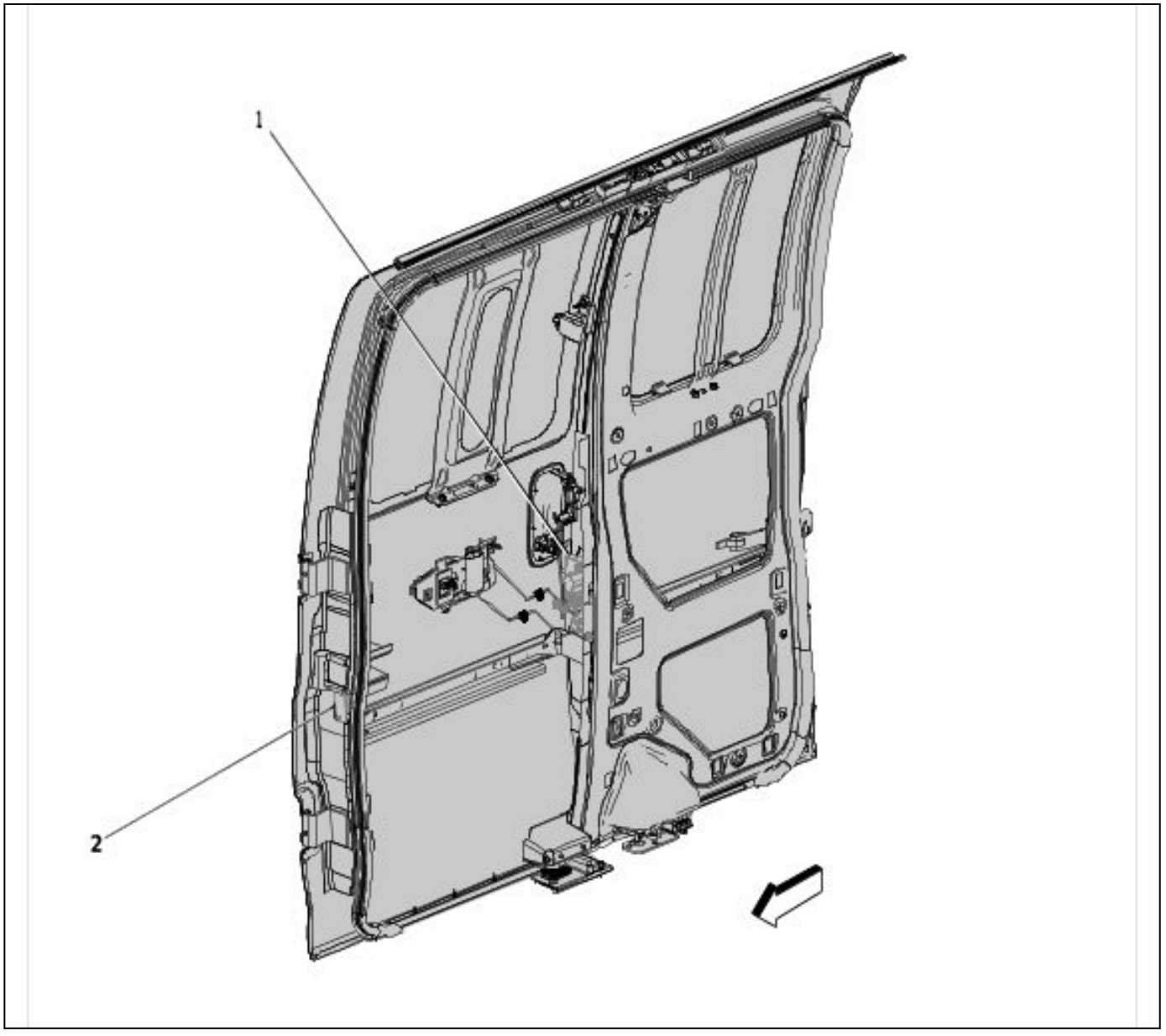


6003020

Items
(1) M74P Window Motor - Passenger M74P Window Motor - Passenger
(2) A23P Door Latch Assembly - Passenger A23P Door Latch Assembly - Passenger X1 A23P Door Latch Assembly - Passenger X2
(3) P19AH Speaker - Right Front Door P19AH Speaker - Right Front Door

Items
(4) A9B Outside Rearview Mirror - Passenger A9B Outside Rearview Mirror - Passenger
(5) S79P Window Switch - Passenger (A31) S79P Window Switch - Passenger (A31)
(6) S13P Door Lock Switch - Passenger (AU3) S13P Door Lock Switch - Passenger (AU3)

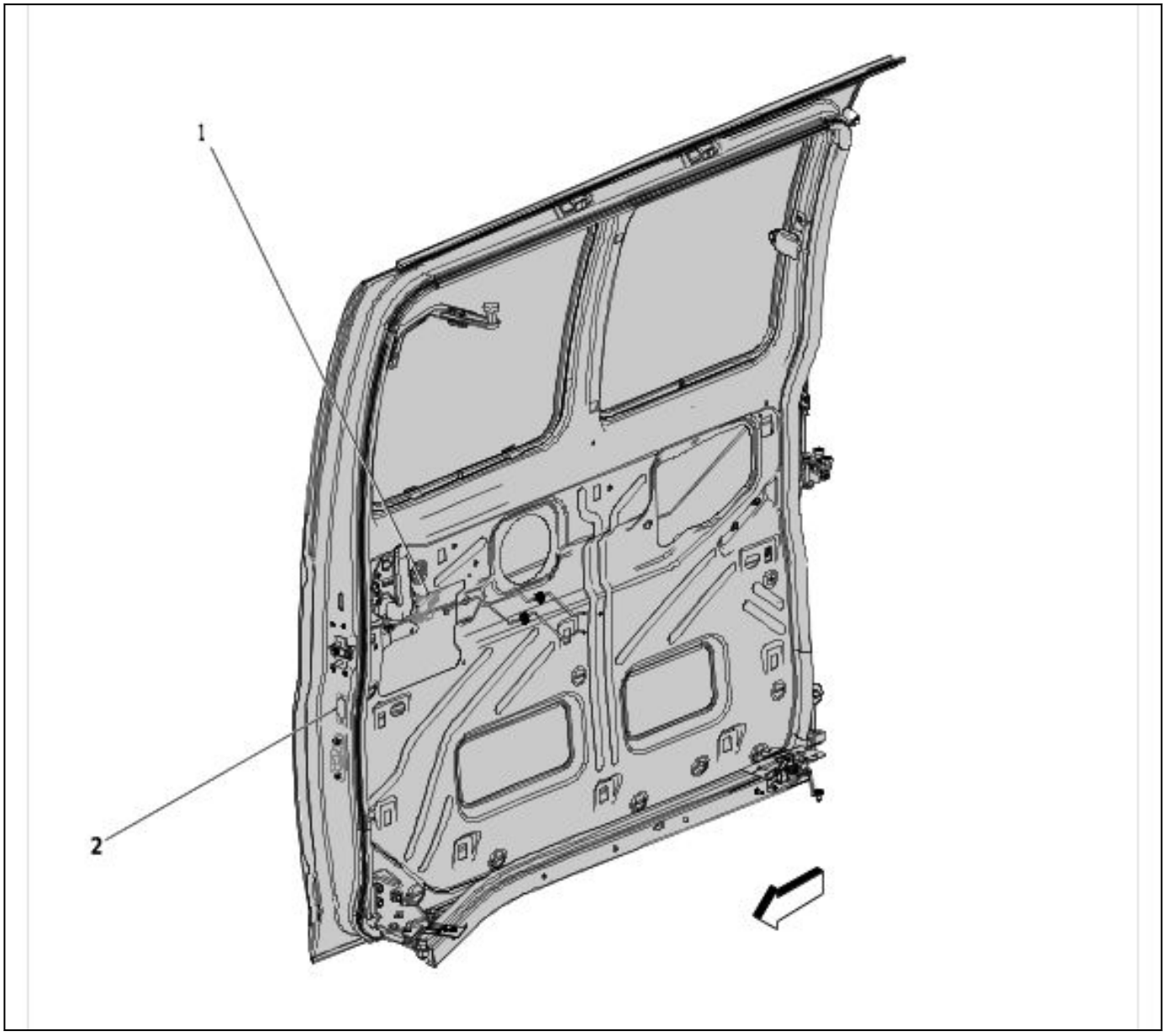
Right Side Hinged Door Components (E24)



6003021

Items
(1) M14RR Door Lock Actuator - Right Rear (E24/YA2) M14RR Door Lock Actuator - Right Rear (E24) M14RR Door Lock Actuator - Right Rear (YA2)
(2) X87RB Sliding Door Jamb Contact Plate - Right Body ((Cutaway)/(Cargo/Passenger)) X87RB Sliding Door Jamb Contact Plate - Right Body (Body) X87RB Sliding Door Jamb Contact Plate - Right Body (Door)

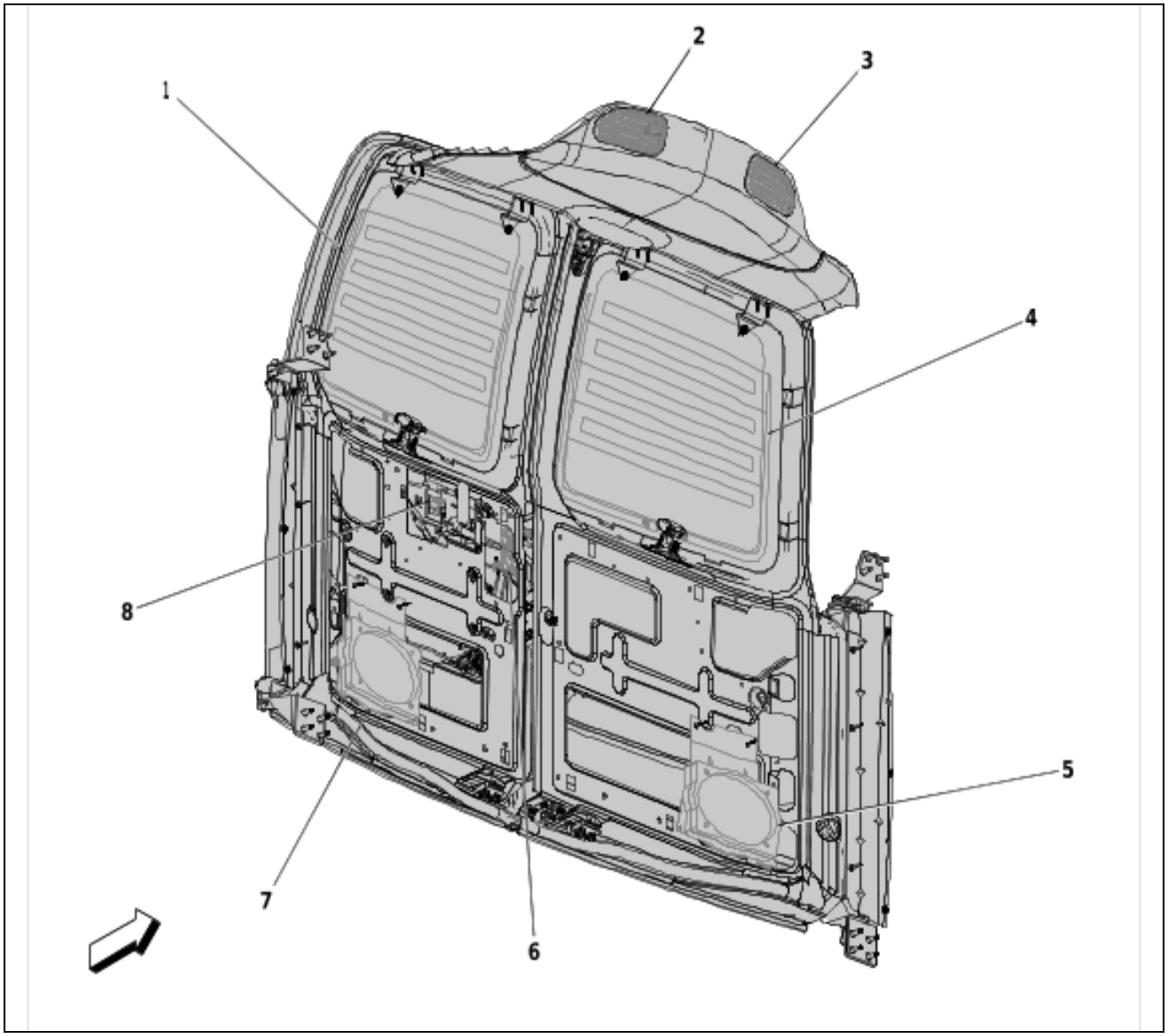
Right Side Sliding Door Components (YA2)



6003022

Items
(1) M14RR Door Lock Actuator - Right Rear (E24/YA2) M14RR Door Lock Actuator - Right Rear (E24) M14RR Door Lock Actuator - Right Rear (YA2)
(2) X87RB Sliding Door Jamb Contact Plate - Right Body ((Cutaway)/(Cargo/Passenger)) X87RB Sliding Door Jamb Contact Plate - Right Body (Body) X87RB Sliding Door Jamb Contact Plate - Right Body (Door)

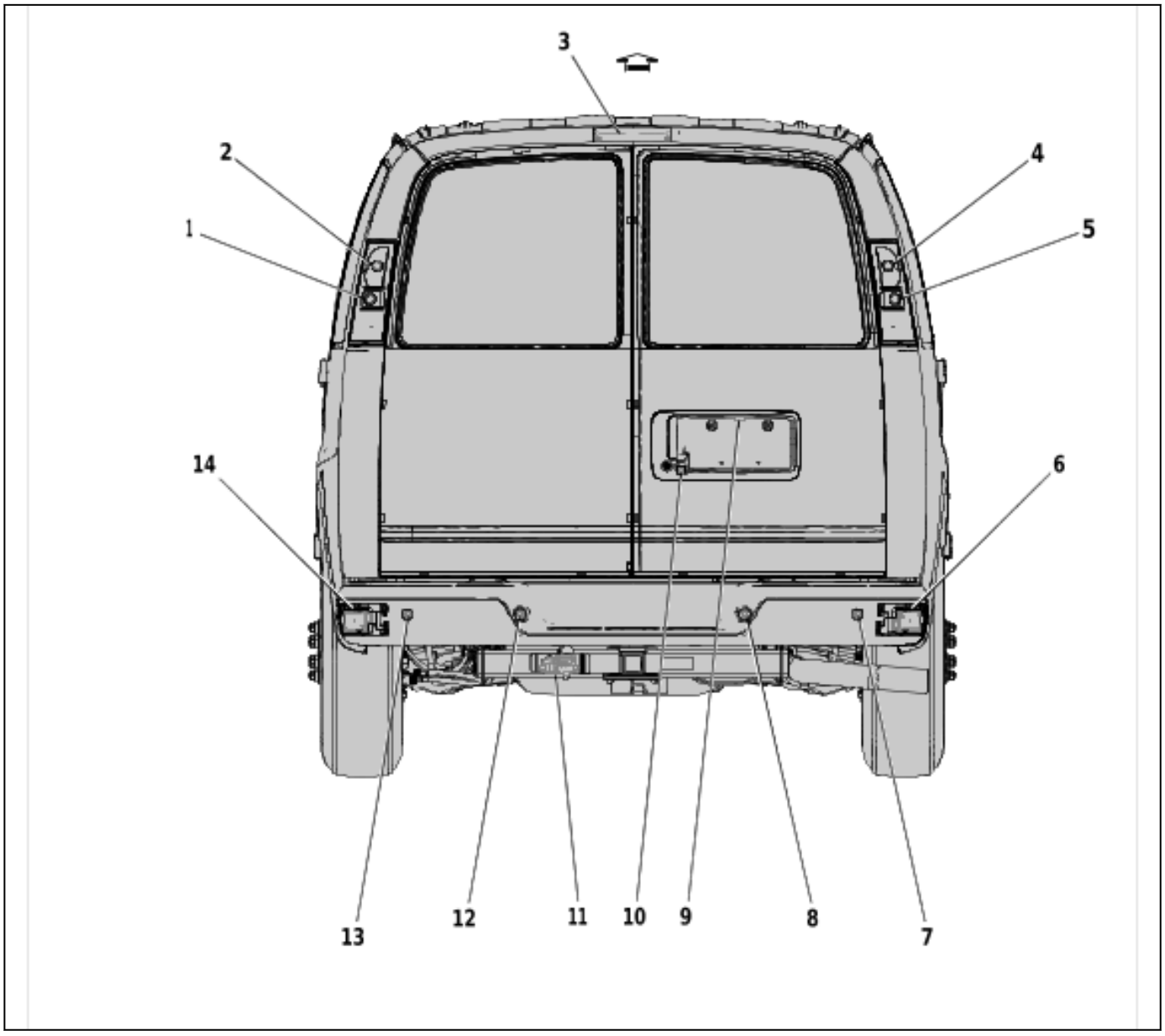
Rear Door Components - Passenger/Cargo



6003023

Items
(1) E18R Rear Defogger Grid - Right (C49) E18R Rear Defogger Grid - Right X1 (C49) E18R Rear Defogger Grid - Right X2 (C49)
(2) P19RR Speaker - Right Rear Roof (Cargo/Passenger) P19RR Speaker - Right Rear Roof
(3) P19LR Speaker - Left Rear Roof (Cargo/Passenger) P19LR Speaker - Left Rear Roof
(4) E18L Rear Defogger Grid - Left (C49) E18L Rear Defogger Grid - Left X1 (C49) E18L Rear Defogger Grid - Left X2 (C49)
(5) P19F Speaker - Left Rear Cargo Door P19F Speaker - Left Rear Cargo Door
(6) M13 Door Latch Assembly - Rear Cargo (Passenger/ Cargo) M13 Door Latch Assembly - Rear Cargo X1 M13 Door Latch Assembly - Rear Cargo X2
(7) P19T Speaker - Right Rear Cargo Door P19T Speaker - Right Rear Cargo Door
(8) S13A Door Lock Switch - Rear Cargo S13A Door Lock Switch - Rear Cargo

Rear of Vehicle Components - Passenger/Cargo

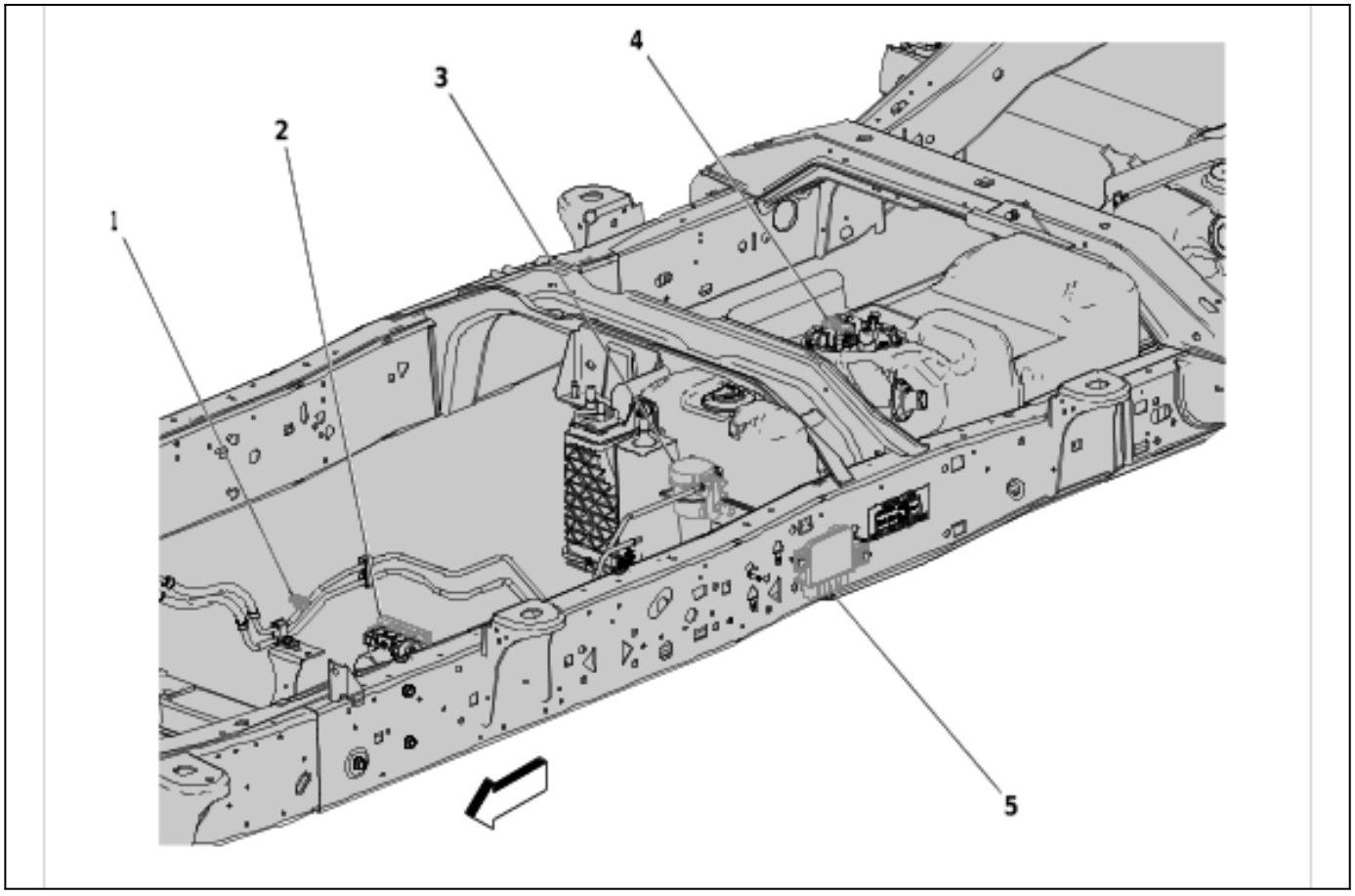


6326444

Items
(1) E5A Backup Lamp - Left E5A Backup Lamp - Left
(2) E5S Tail/Stop and Turn Signal Lamp - Left (Passenger/ Cargo) E5S Tail/Stop and Turn Signal Lamp - Left
(3) E6 Center High Mounted Stop Lamp (Passenger/Cargo) E6 Center High Mounted Stop Lamp
(4) E5T Tail/Stop and Turn Signal Lamp - Right (Passenger/ Cargo) E5T Tail/Stop and Turn Signal Lamp - Right
(5) E5B Backup Lamp - Right E5B Backup Lamp - Right
(6) B218R Side Object Sensor Module - Right (UFT) B218R Side Object Sensor Module - Right (UFT)

Items
(7) B306H Parking Assist Sensor - Rear Right Outer (UD7) B306H Parking Assist Sensor - Rear Right Outer (UD7)
(8) B306G Parking Assist Sensor - Rear Right Middle (UD7) B306G Parking Assist Sensor - Rear Right Middle (UD7)
(9) E7 License Plate Lamp (Passenger/Cargo) E7 License Plate Lamp
(10) B87 Rearview Camera (UVC) B87 Rearview Camera (UVC)
(11) X88 Trailer Connector (UY7) X88 Trailer Connector (UY7)
(12) B306F Parking Assist Sensor - Rear Left Middle (UD7) B306F Parking Assist Sensor - Rear Left Middle (UD7)
(13) B306E Parking Assist Sensor - Rear Left Outer (UD7) B306E Parking Assist Sensor - Rear Left Outer (UD7)
(14) B218L Side Object Sensor Module - Left (UFT) B218L Side Object Sensor Module - Left (UFT)

Frame and Underbody Components (- NE7)

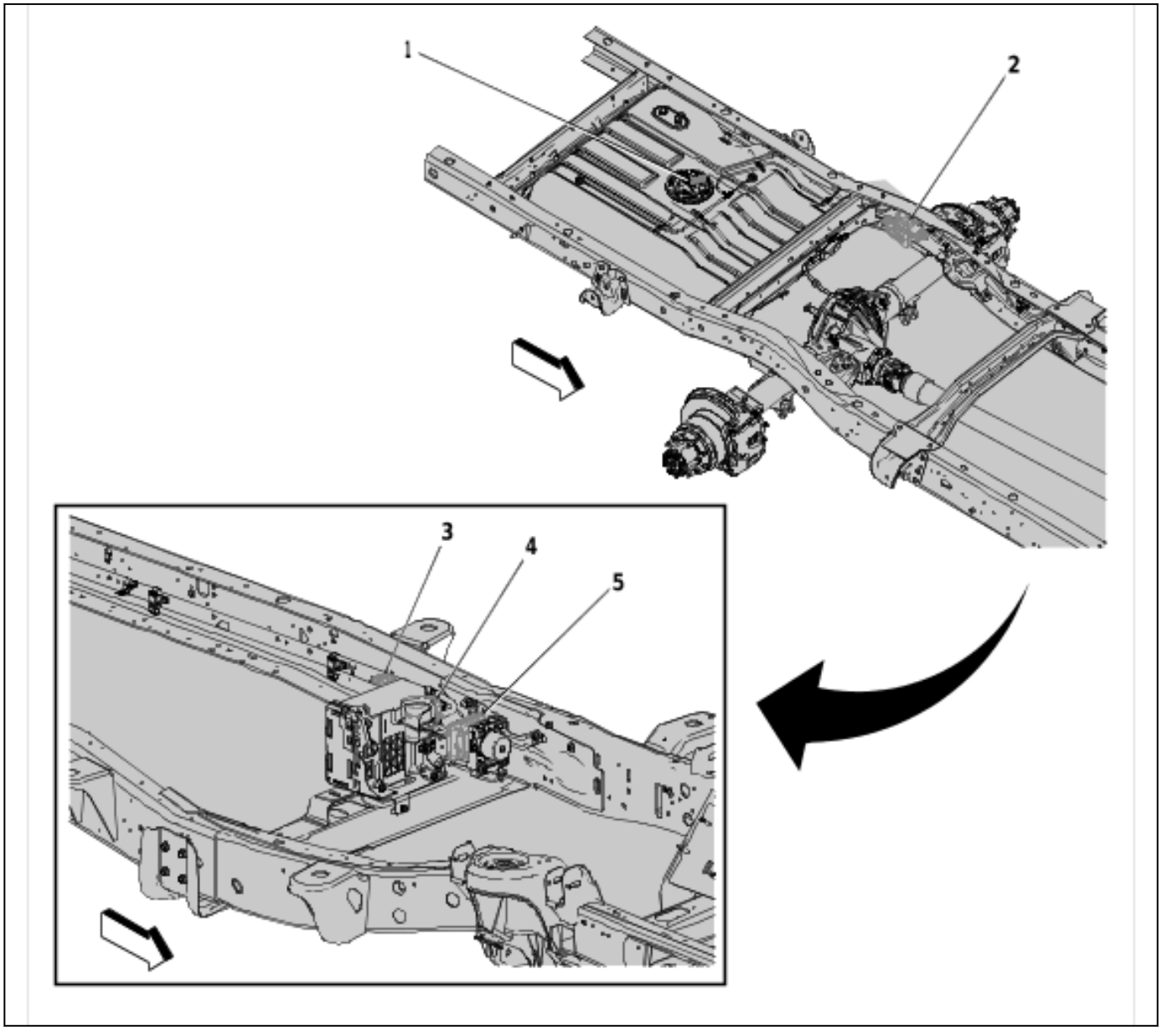


6003026

Items
(1) B47 Fuel Pressure Sensor B47 Fuel Pressure Sensor - Without Cutaway B47 Fuel Pressure Sensor - Cutaway
(2) K17 Electronic Brake Control Module K17 Electronic Brake Control Module

Items
(3) Q13 Evaporative Emission Vent Solenoid Valve Q13 Evaporative Emission Vent Solenoid Valve
(4) B150 Fuel Tank Pressure Sensor B150 Fuel Tank Pressure Sensor
(5) K111 Fuel Pump Driver Control Module K111 Fuel Pump Driver Control Module

Frame and Underbody Components (NE7)

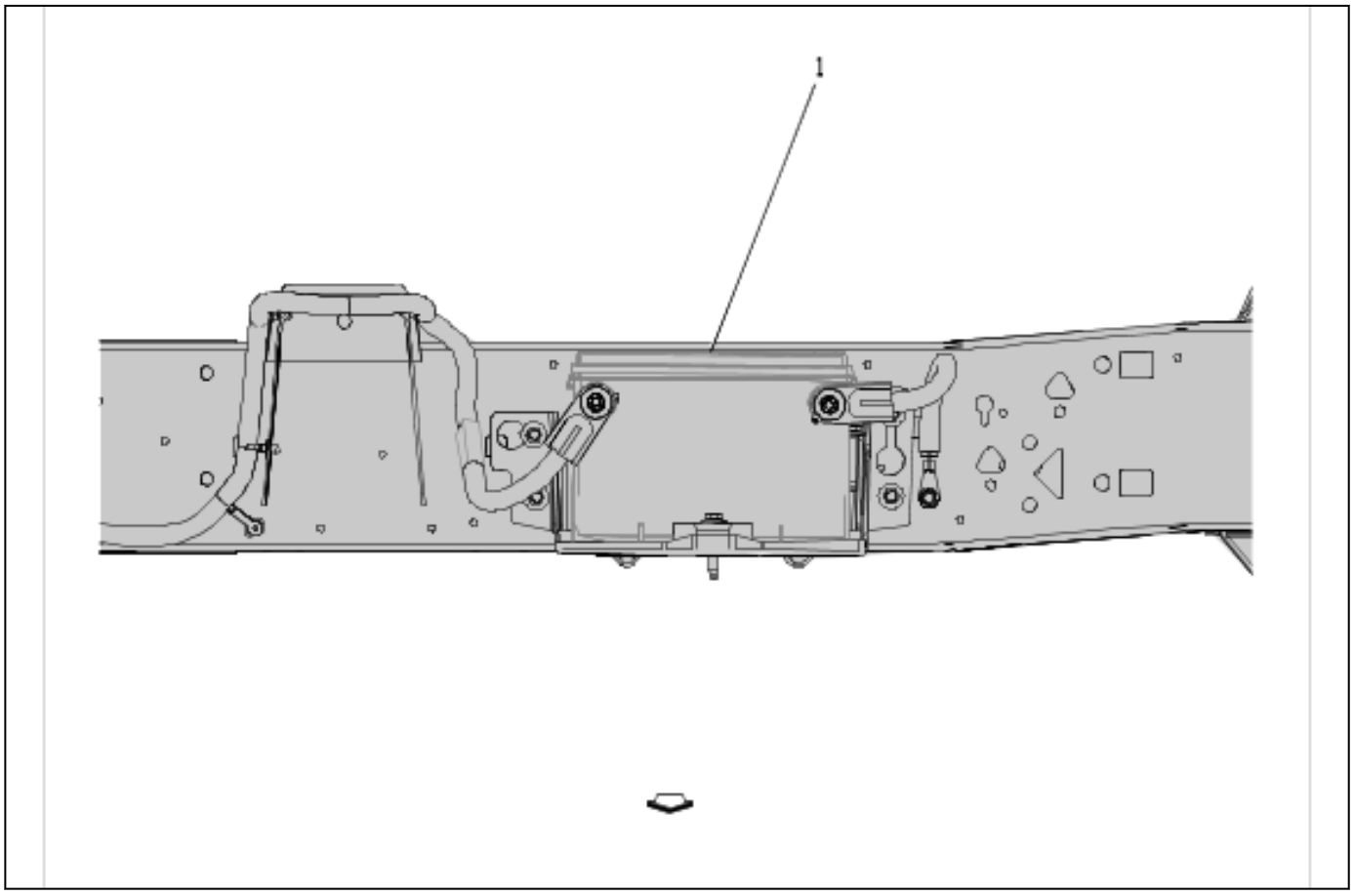


6003028

Items
(1) B150 Fuel Tank Pressure Sensor B150 Fuel Tank Pressure Sensor
(2) K111 Fuel Pump Driver Control Module K111 Fuel Pump Driver Control Module

Items
(3) B47 Fuel Pressure Sensor
B47 Fuel Pressure Sensor - Without Cutaway B47 Fuel Pressure Sensor - Cutaway
(4) Q13 Evaporative Emission Vent Solenoid Valve
Q13 Evaporative Emission Vent Solenoid Valve
(5) K17 Electronic Brake Control Module
K17 Electronic Brake Control Module

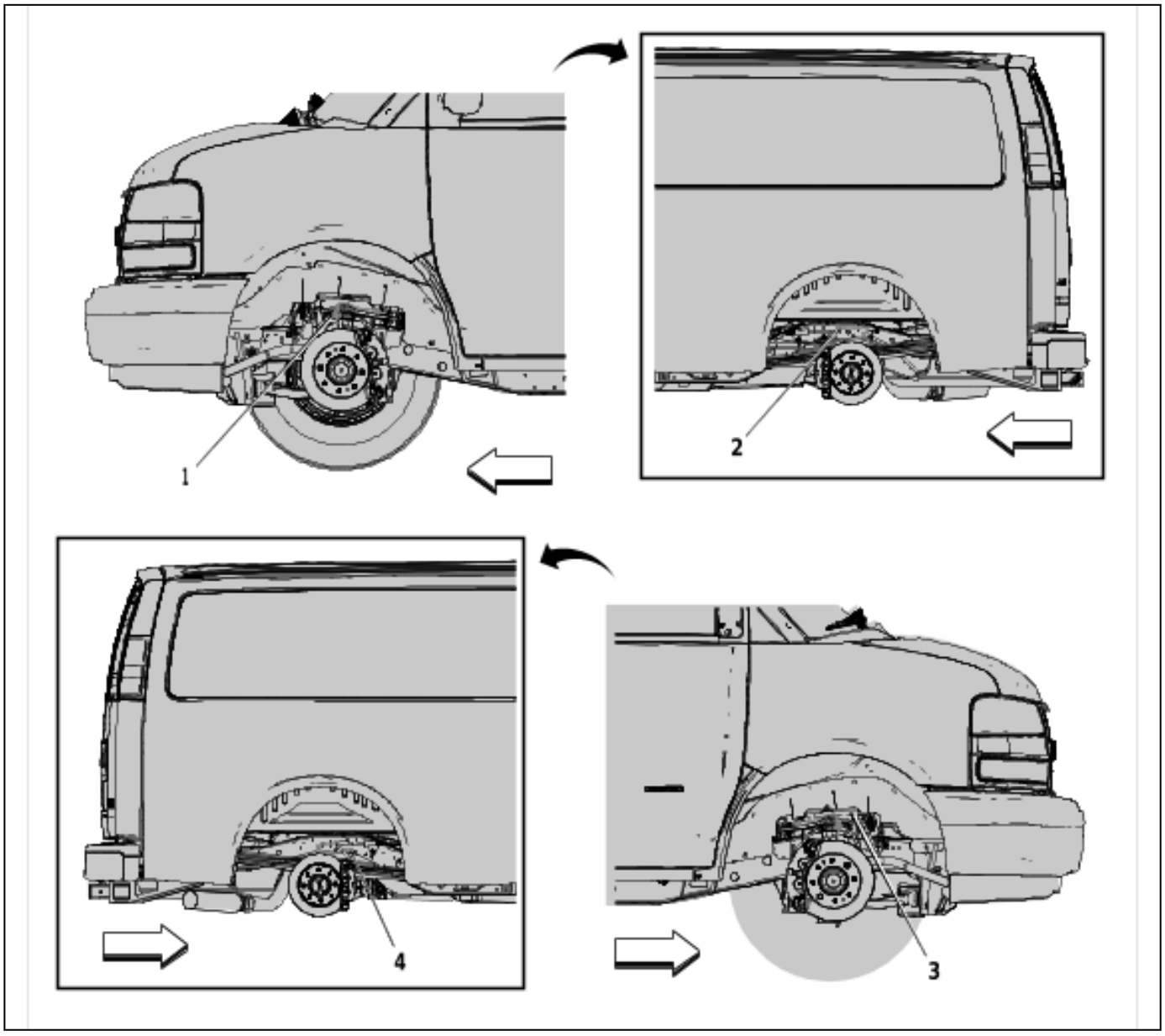
Auxiliary Battery (TP3)



6133375

Items
(1) C1B Battery - Auxiliary (TP3)
C1B Battery - Auxiliary X1 (TP3) C1B Battery - Auxiliary X2 (TP3)

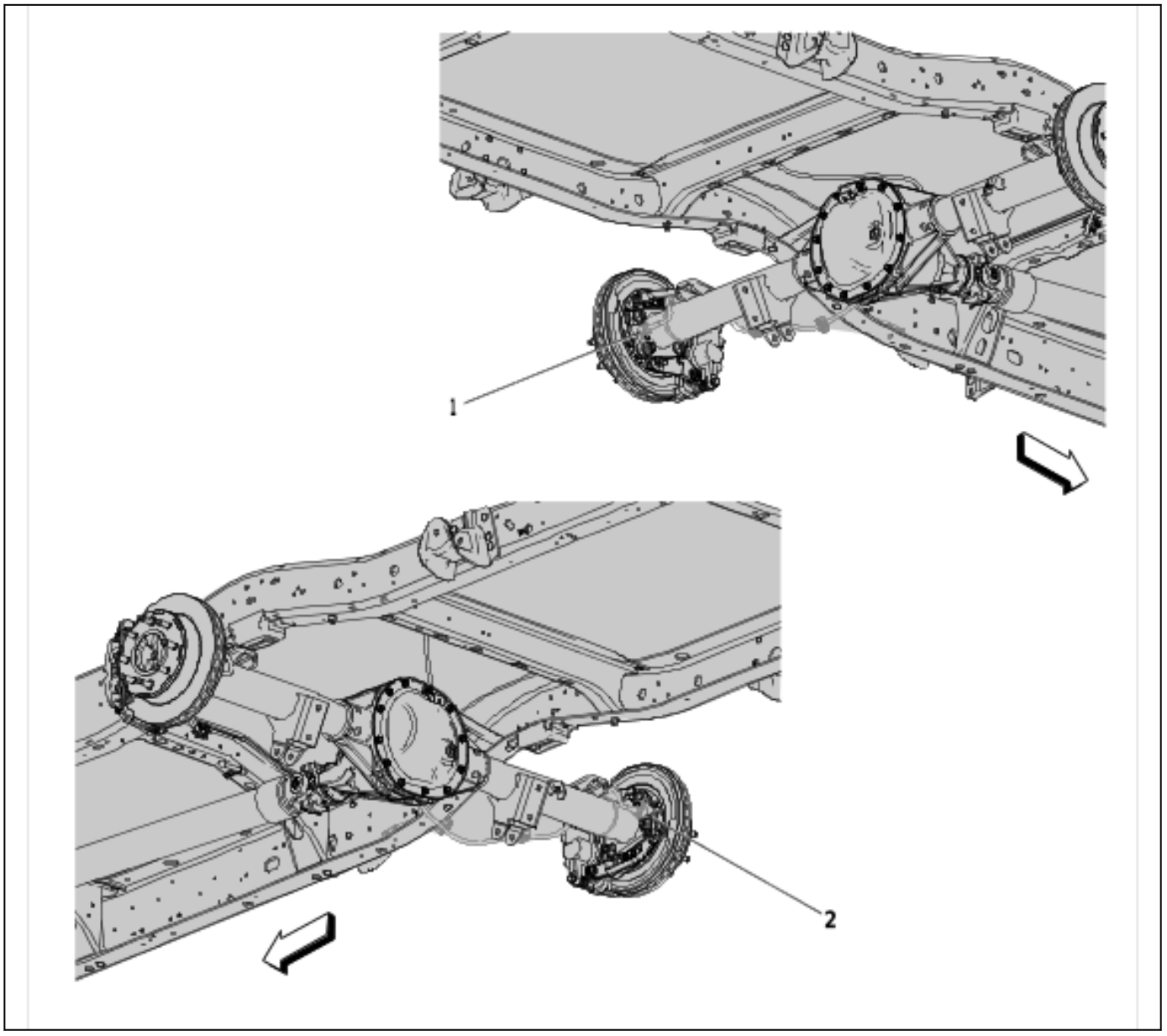
Wheel Speed Sensors - Cargo/Passenger



6003029

Items
(1) B5LF Wheel Speed Sensor - Left Front B5LF Wheel Speed Sensor - Left Front
(2) B5LR Wheel Speed Sensor - Left Rear B5LR Wheel Speed Sensor - Left Rear
(3) B5RF Wheel Speed Sensor - Right Front B5RF Wheel Speed Sensor - Right Front
(4) B5RR Wheel Speed Sensor - Right Rear ((R04)/-(R04)) B5RR Wheel Speed Sensor - Right Rear (- R04) B5RR Wheel Speed Sensor - Right Rear (R04)

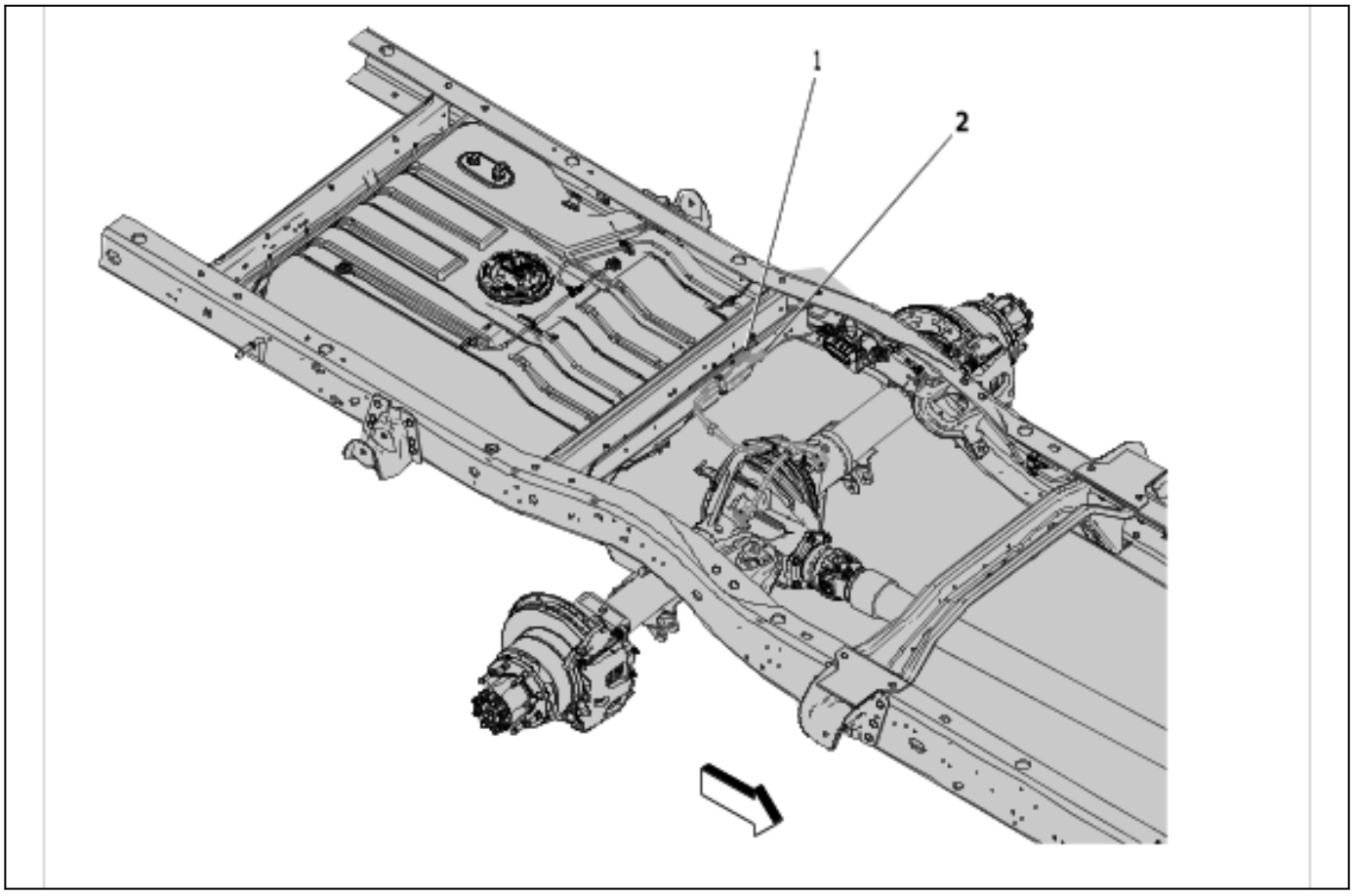
Wheel Speed Sensors - Cutaway with SRW



6003030

Items
(1) B5LR Wheel Speed Sensor - Left Rear B5LR Wheel Speed Sensor - Left Rear
(2) B5RR Wheel Speed Sensor - Right Rear ((R04)/-(R04)) B5RR Wheel Speed Sensor - Right Rear (- R04) B5RR Wheel Speed Sensor - Right Rear (R04)

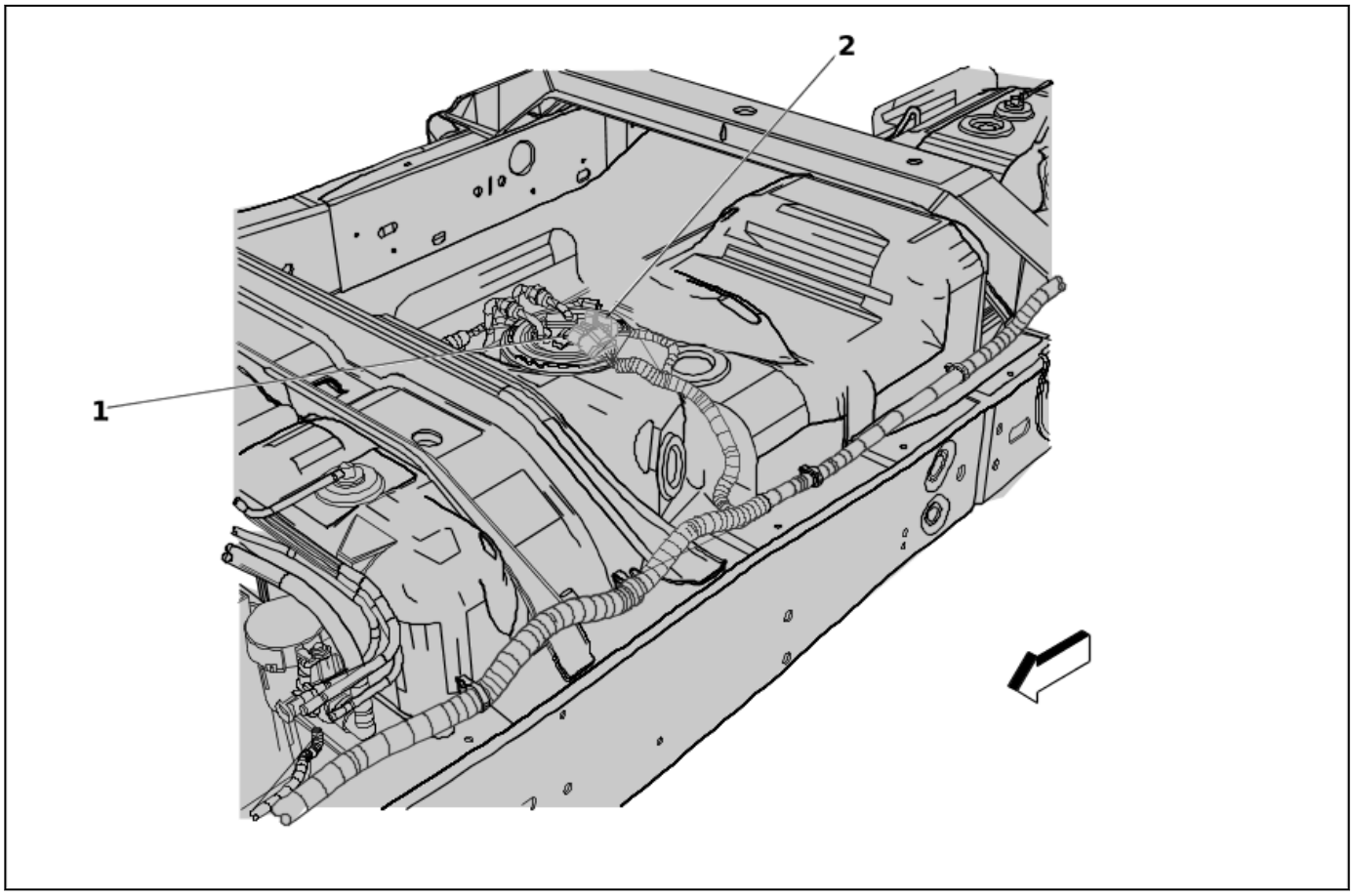
Wheel Speed Sensors - Cutaway with DRW



6003031

Items
(1) B5RR Wheel Speed Sensor - Right Rear ((R04)/-(R04)) B5RR Wheel Speed Sensor - Right Rear (- R04) B5RR Wheel Speed Sensor - Right Rear (R04)
(2) B5LR Wheel Speed Sensor - Left Rear B5LR Wheel Speed Sensor - Left Rear

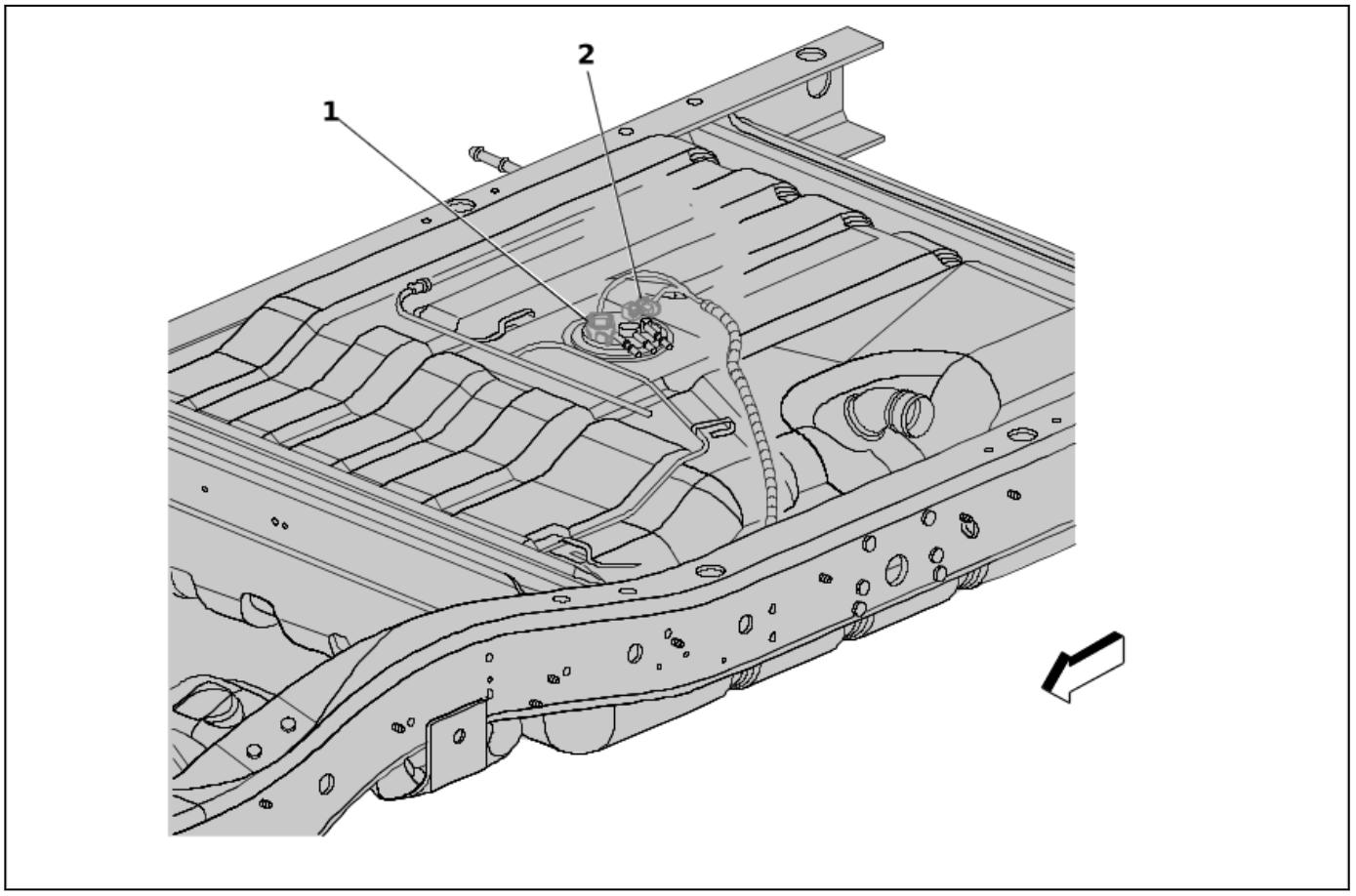
Fuel Tank Components (- NE7)



2831324

Items
(1) A7 Fuel Pump and Level Sensor Assembly A7 Fuel Pump and Level Sensor Assembly
(2) B150 Fuel Tank Pressure Sensor B150 Fuel Tank Pressure Sensor

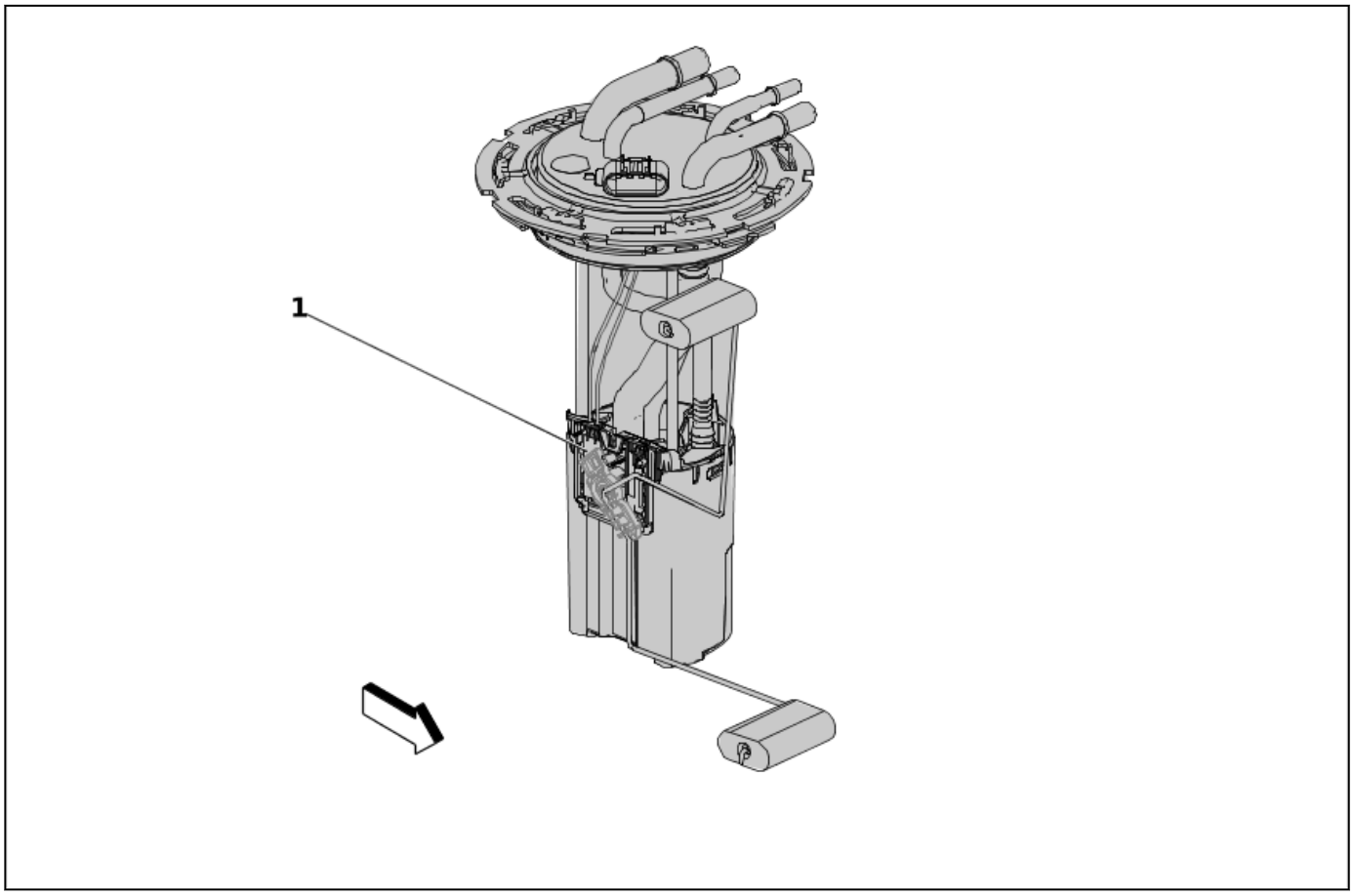
Fuel Tank Components (NE7)



2831321

Items
(1) B150 Fuel Tank Pressure Sensor B150 Fuel Tank Pressure Sensor
(2) A7 Fuel Pump and Level Sensor Assembly A7 Fuel Pump and Level Sensor Assembly

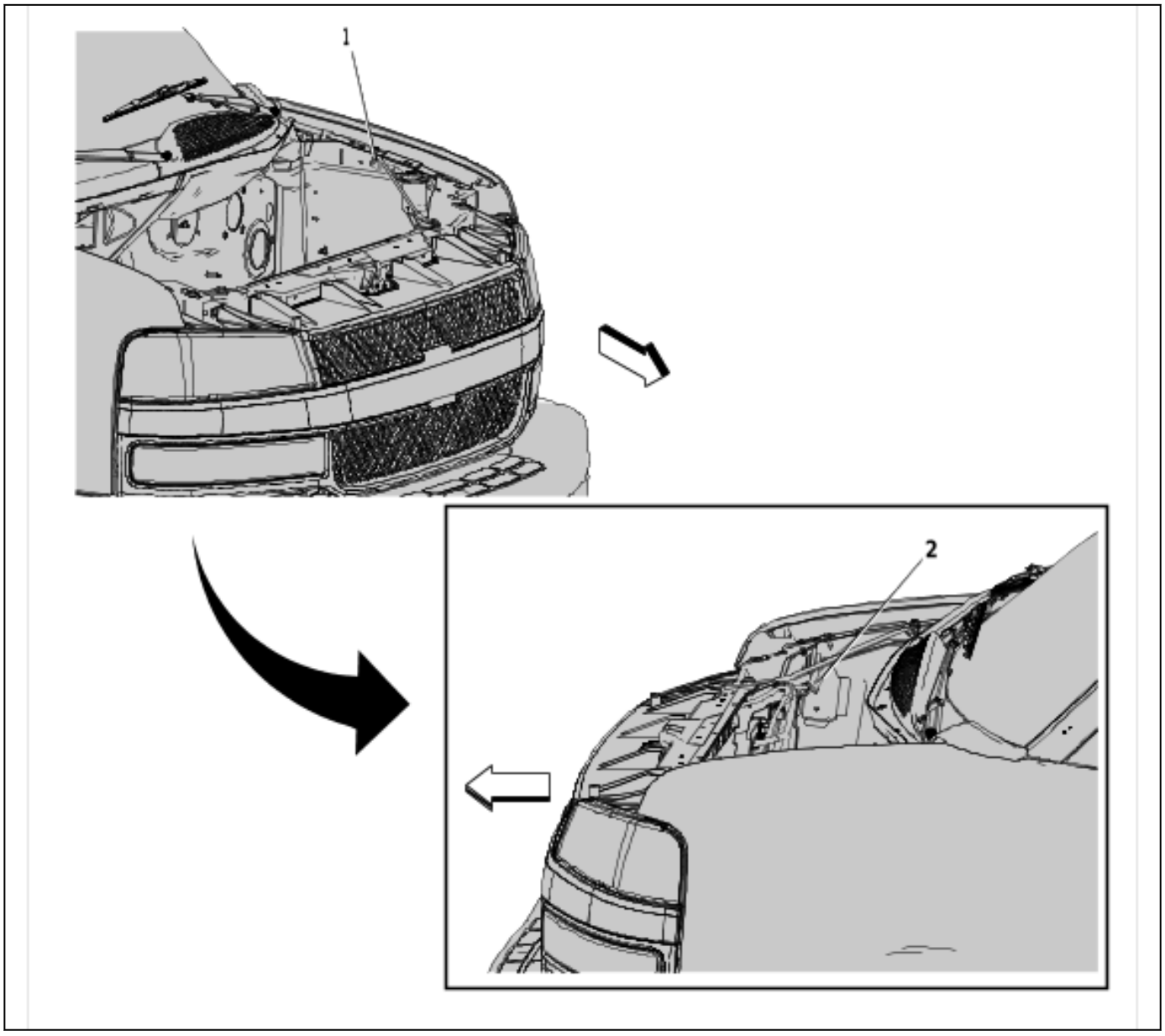
Inside of Fuel Tank Components



2831317

Items
(1) B46 Fuel Level Sensor

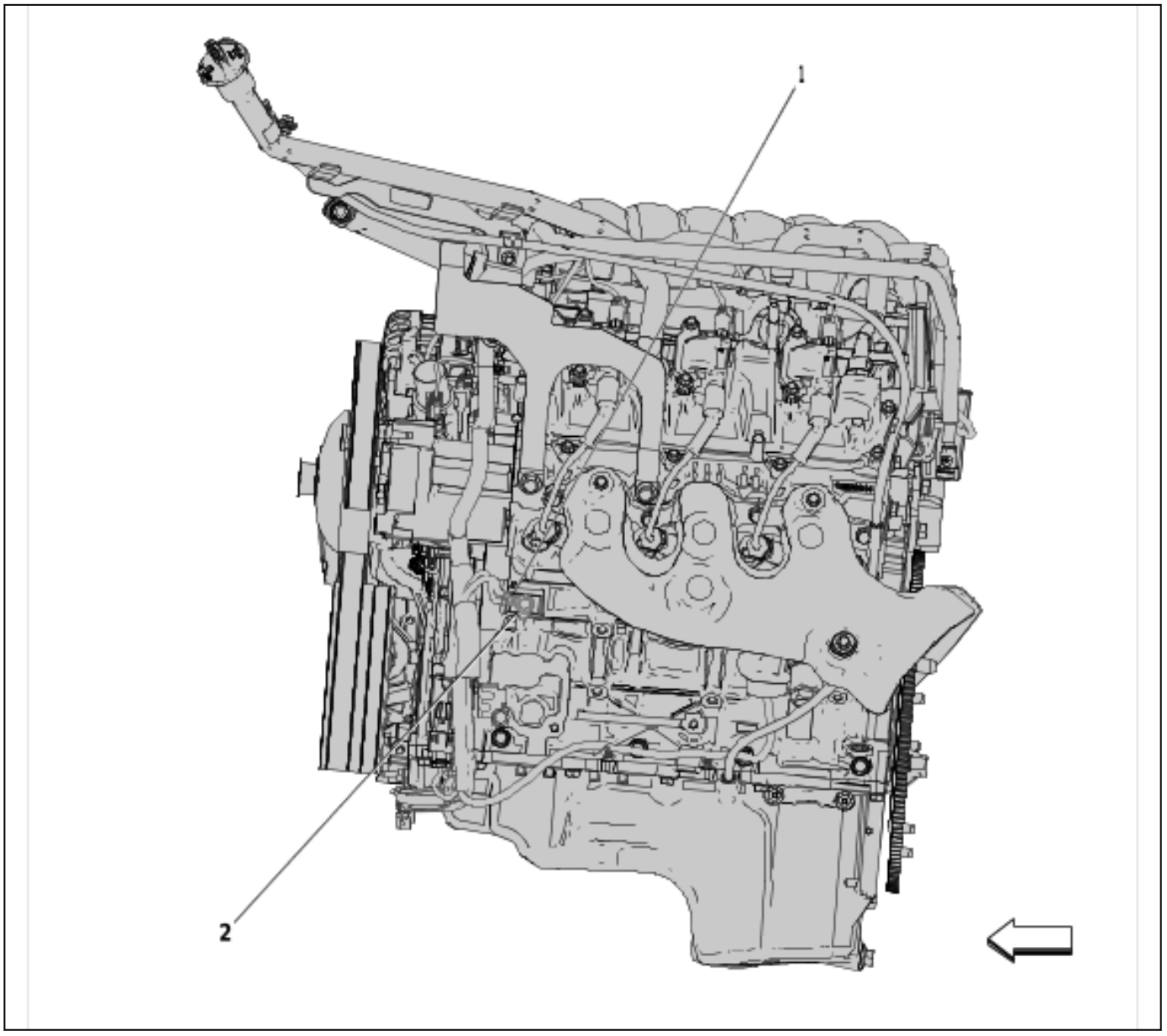
G100 and G101



6040687

Items
(1) G100 Forward Lamp Wiring Harness
(2) G101 Forward Lamp Wiring Harness

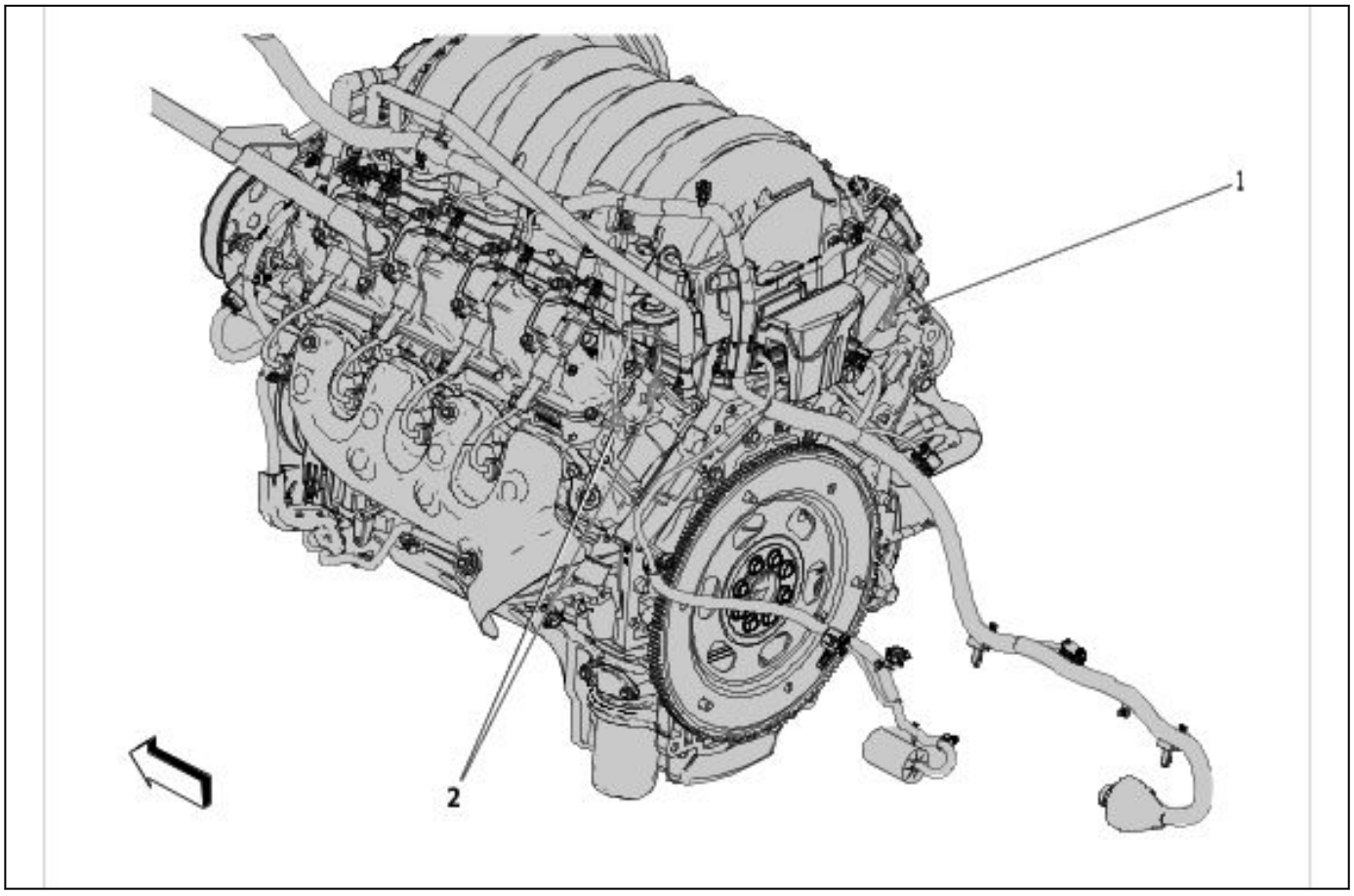
G102 and G103 (LV1)



6003033

Items
(1) G102 Engine Wiring Harness
(2) G103 Engine Wiring Harness

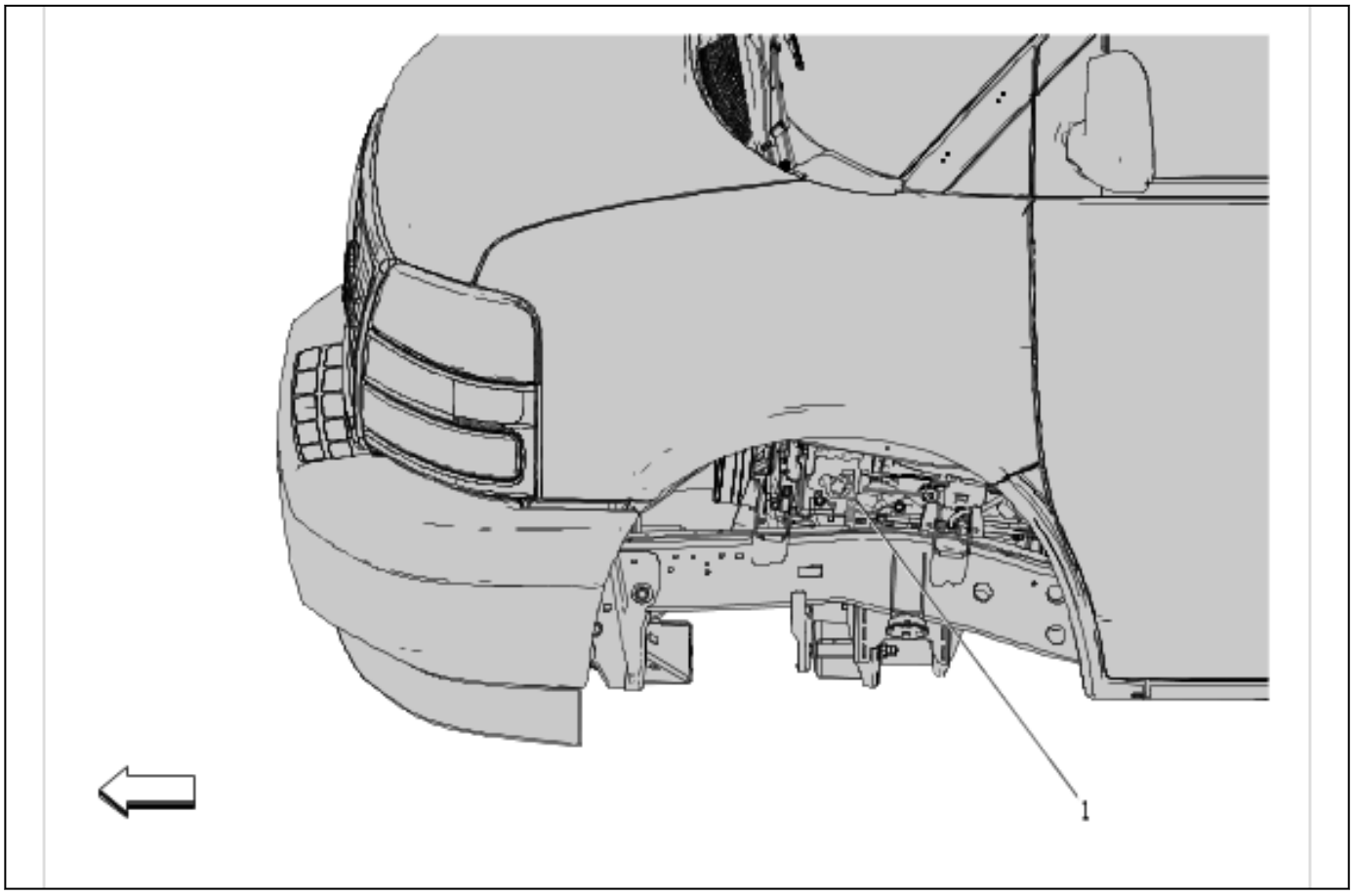
G102 and G103 (L8T)



6040688

Items
(1) G102 Engine Wiring Harness
(2) G103 Engine Wiring Harness

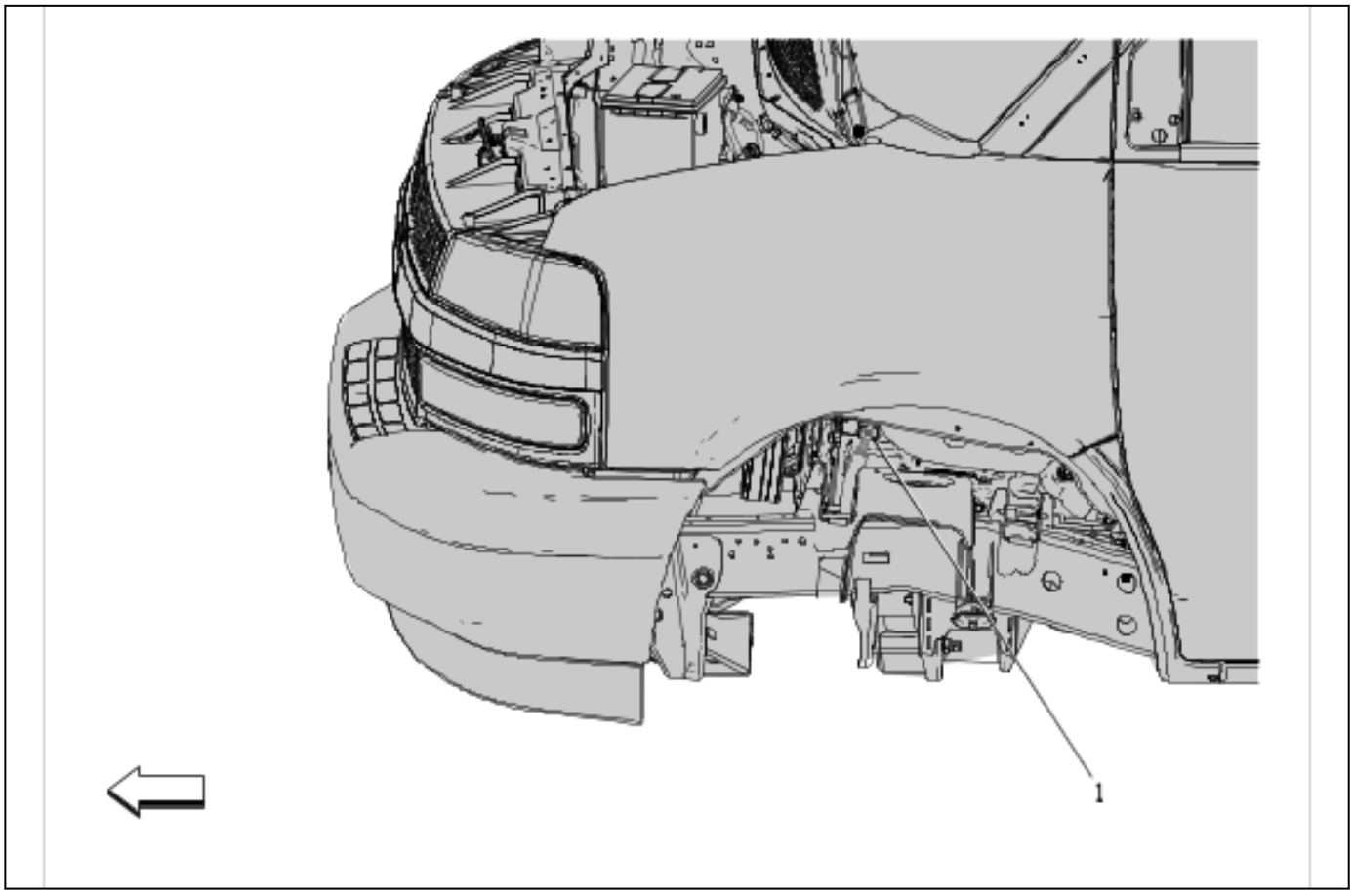
G104 (LV1)



6040689

Items
(1) G104 Negative Battery Cable

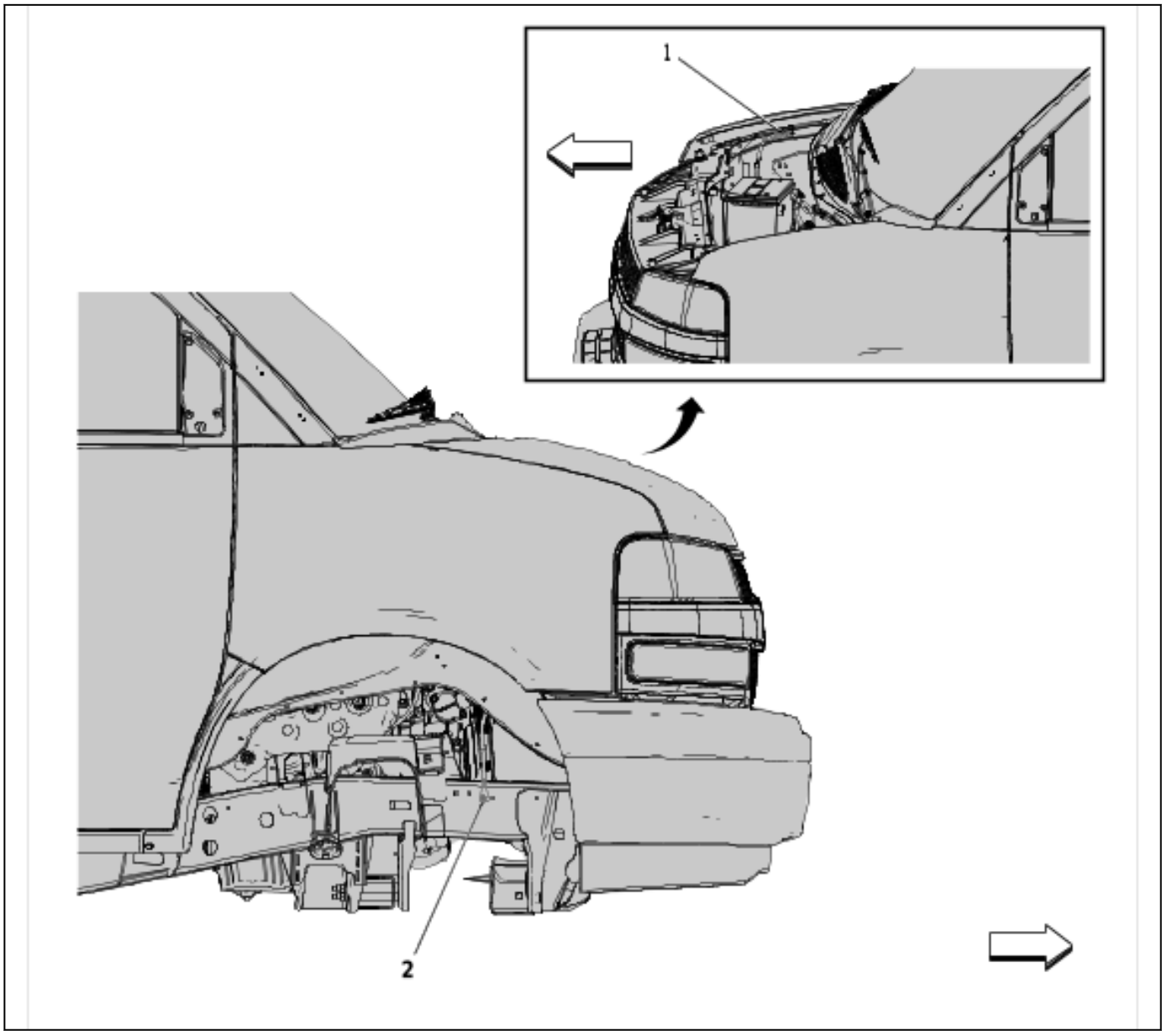
G104 (L8T)



6040690

Items
(1) G104 Negative Battery Cable

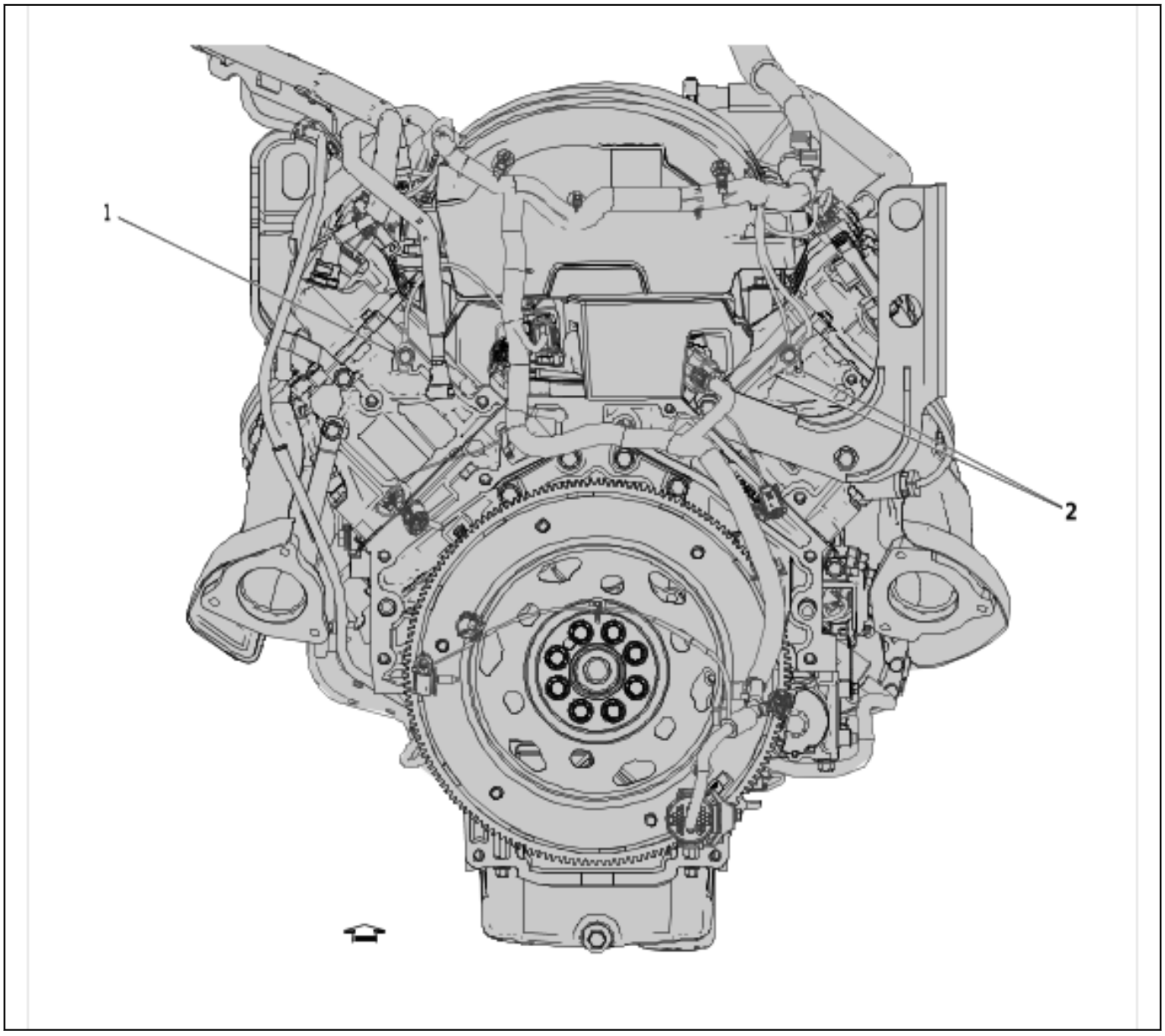
G105 and G106



6040692

Items
(1) G106 Negative Battery Cable
(2) G105 Negative Battery Cable

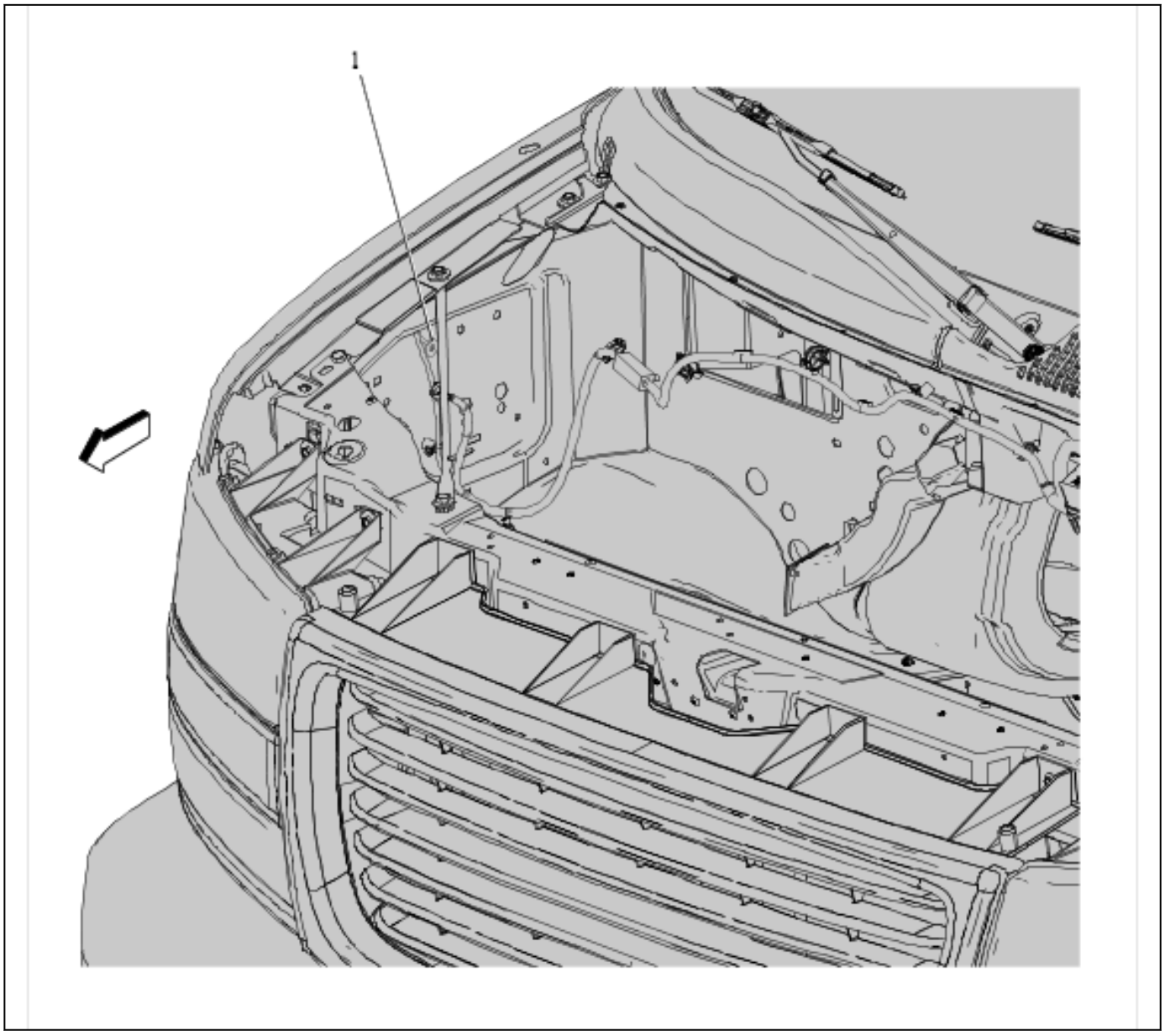
G107 and G108



6274620

Items
(1) G108 Engine Wiring Harness
(2) G107 Engine Wiring Harness (LV1)

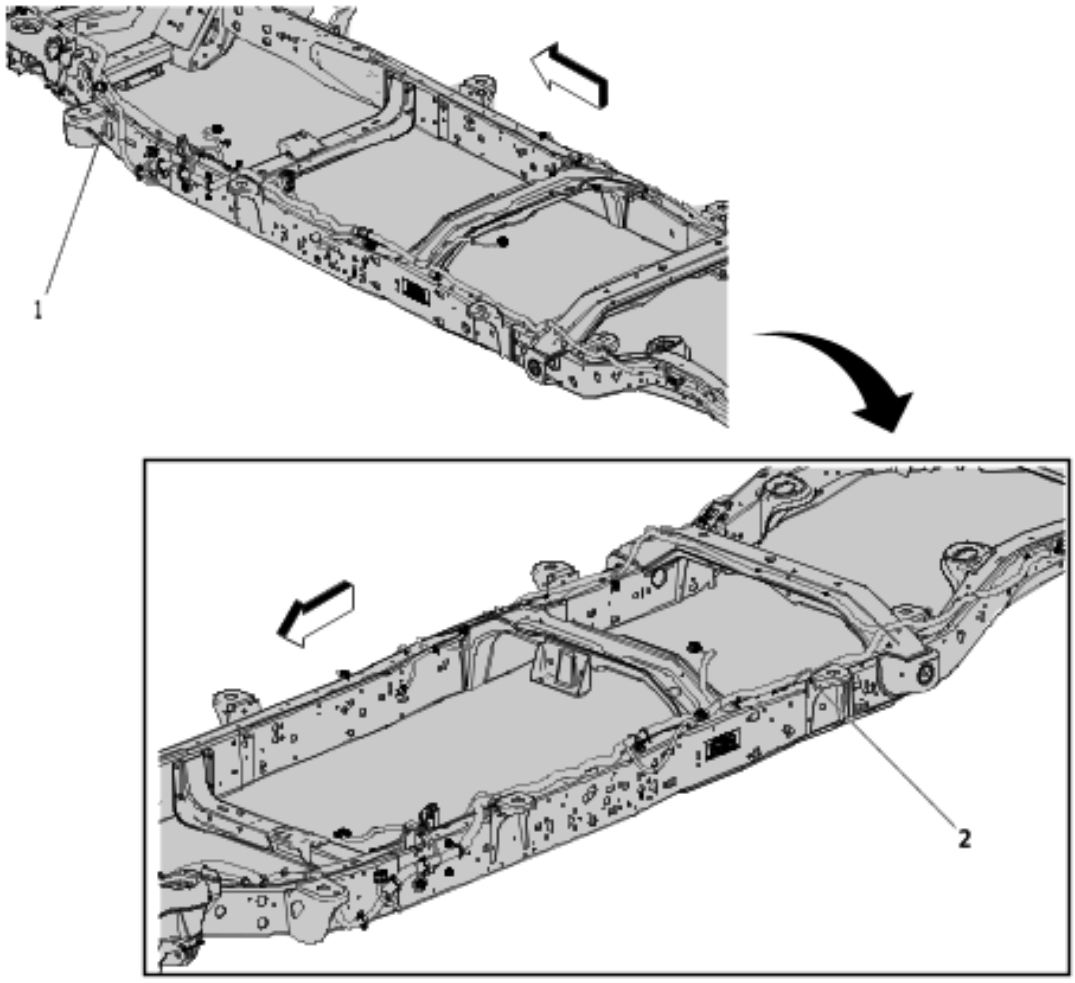
G109 (9L7)



6003036

Items
(1) G109 Accessory Wiring Harness (9L7)

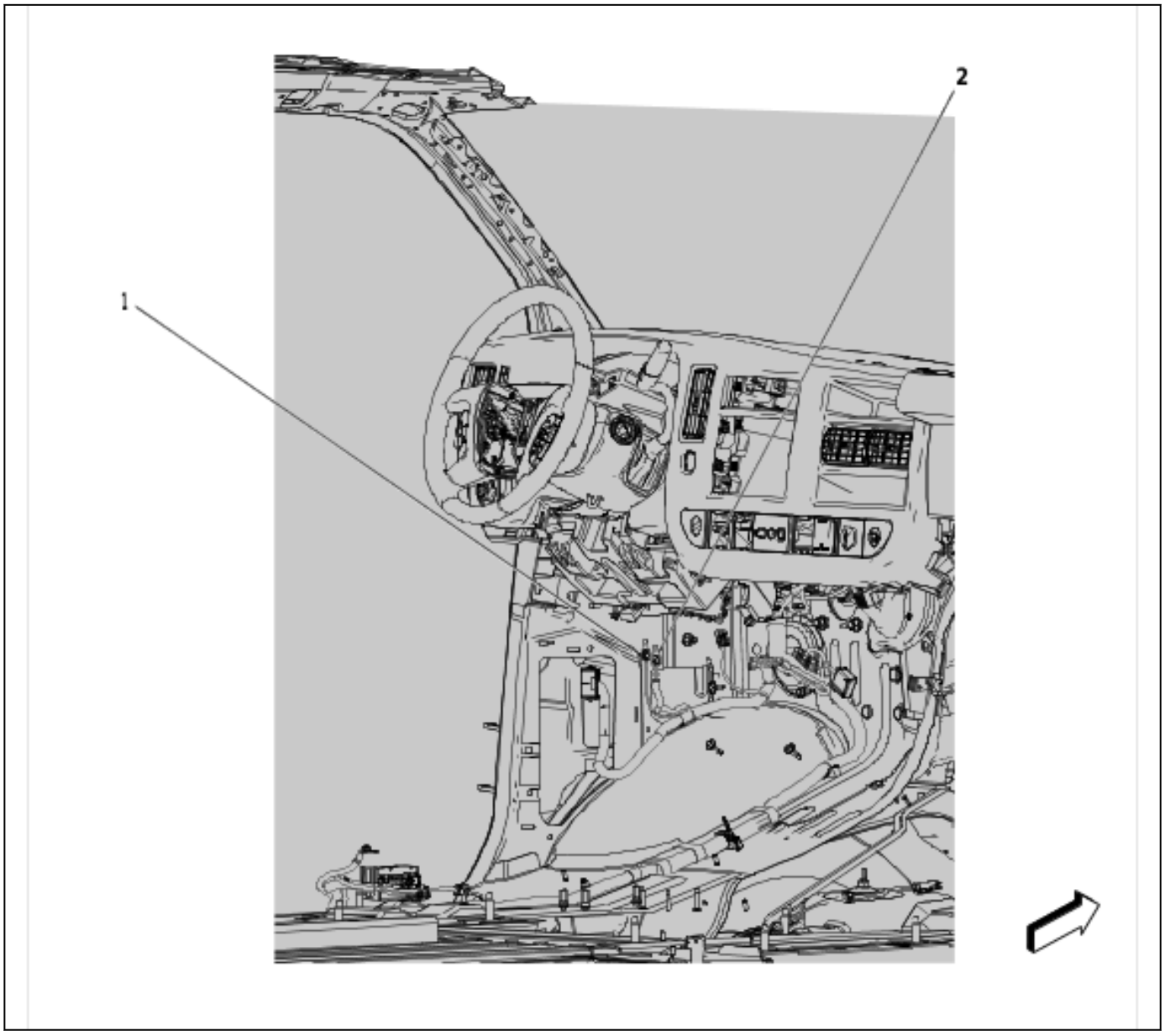
G300 and G404 - Passenger/Cargo



6087091

Items
(1) G300 Chassis Wiring Harness
(2) G404 Chassis Wiring Harness

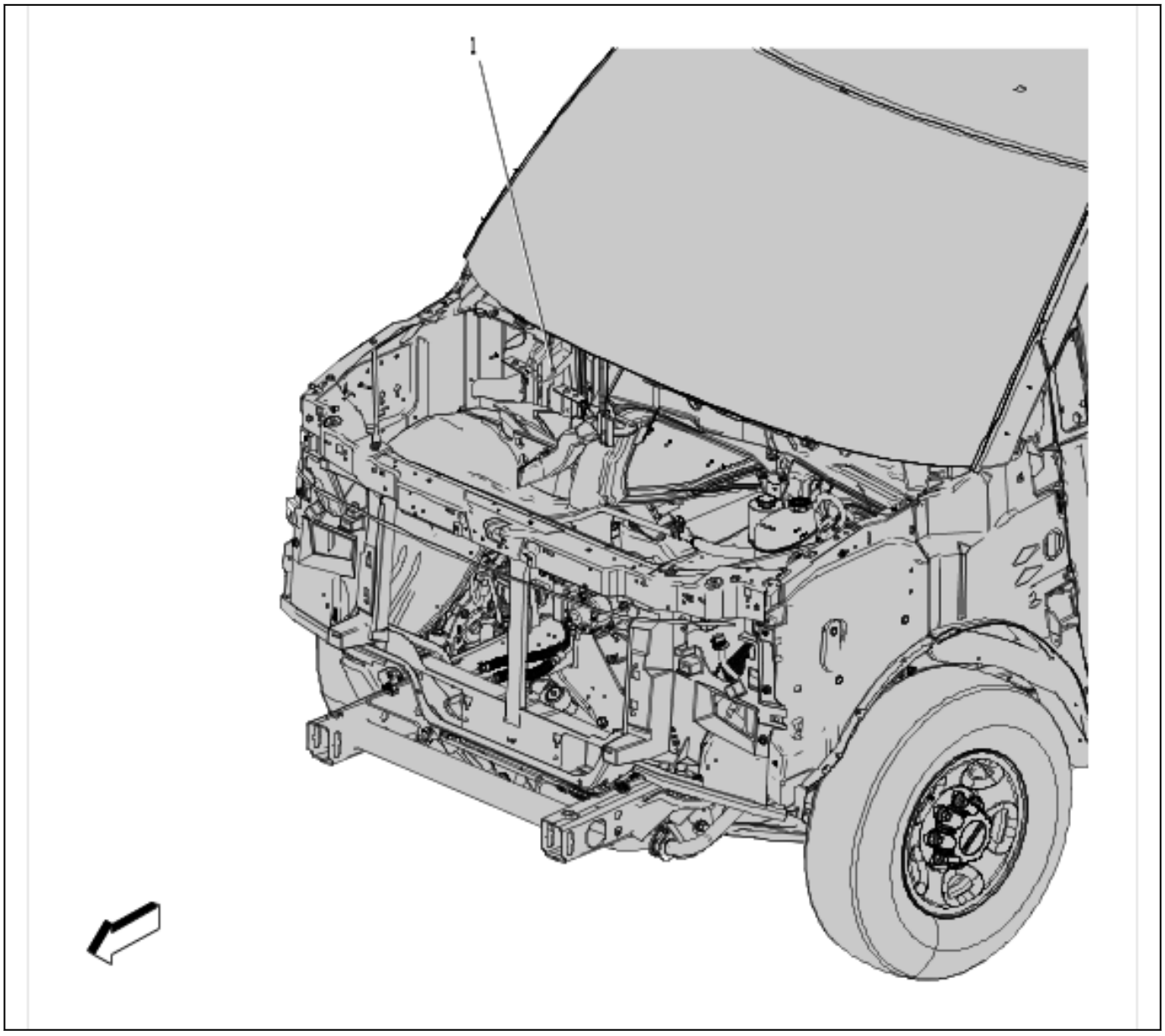
G301 and G302



6043576

Items
(1) G301 Instrument Panel
(2) G302 Instrument Panel

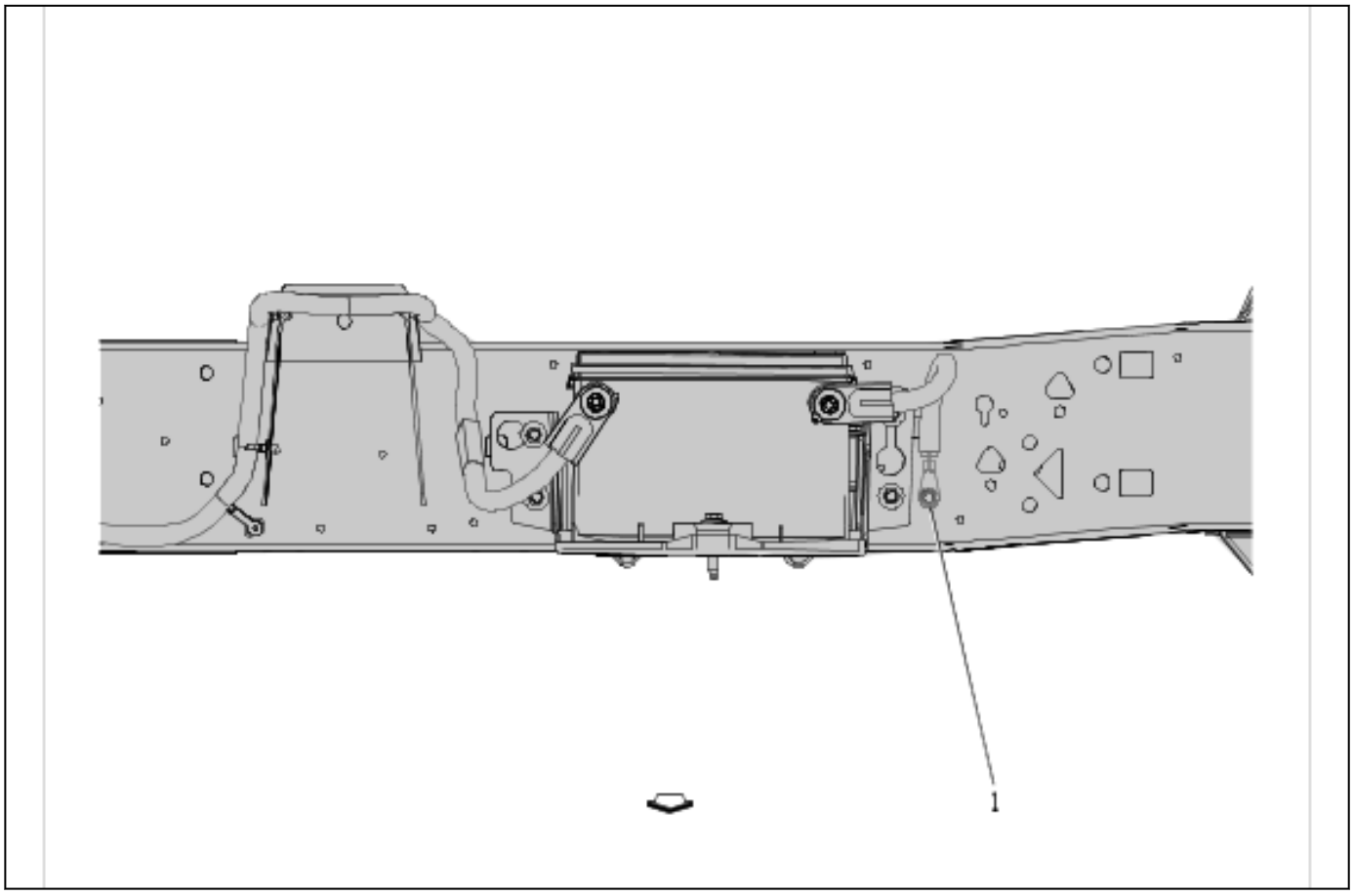
G304



6043578

Items
(1) G304 Instrument Panel

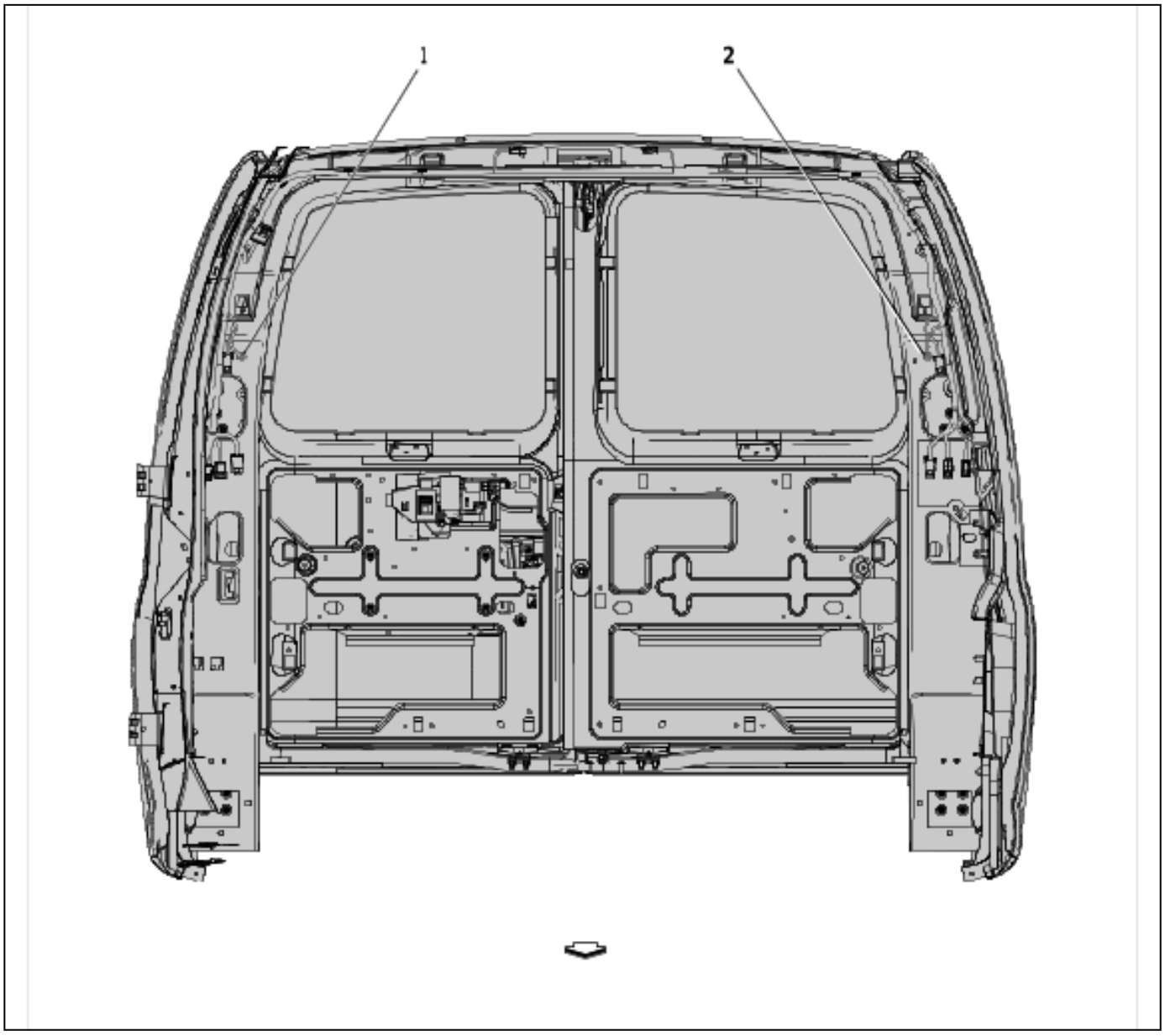
G305



6040693

Items
(1) G305 Auxiliary Battery Negative Cable (TP3)

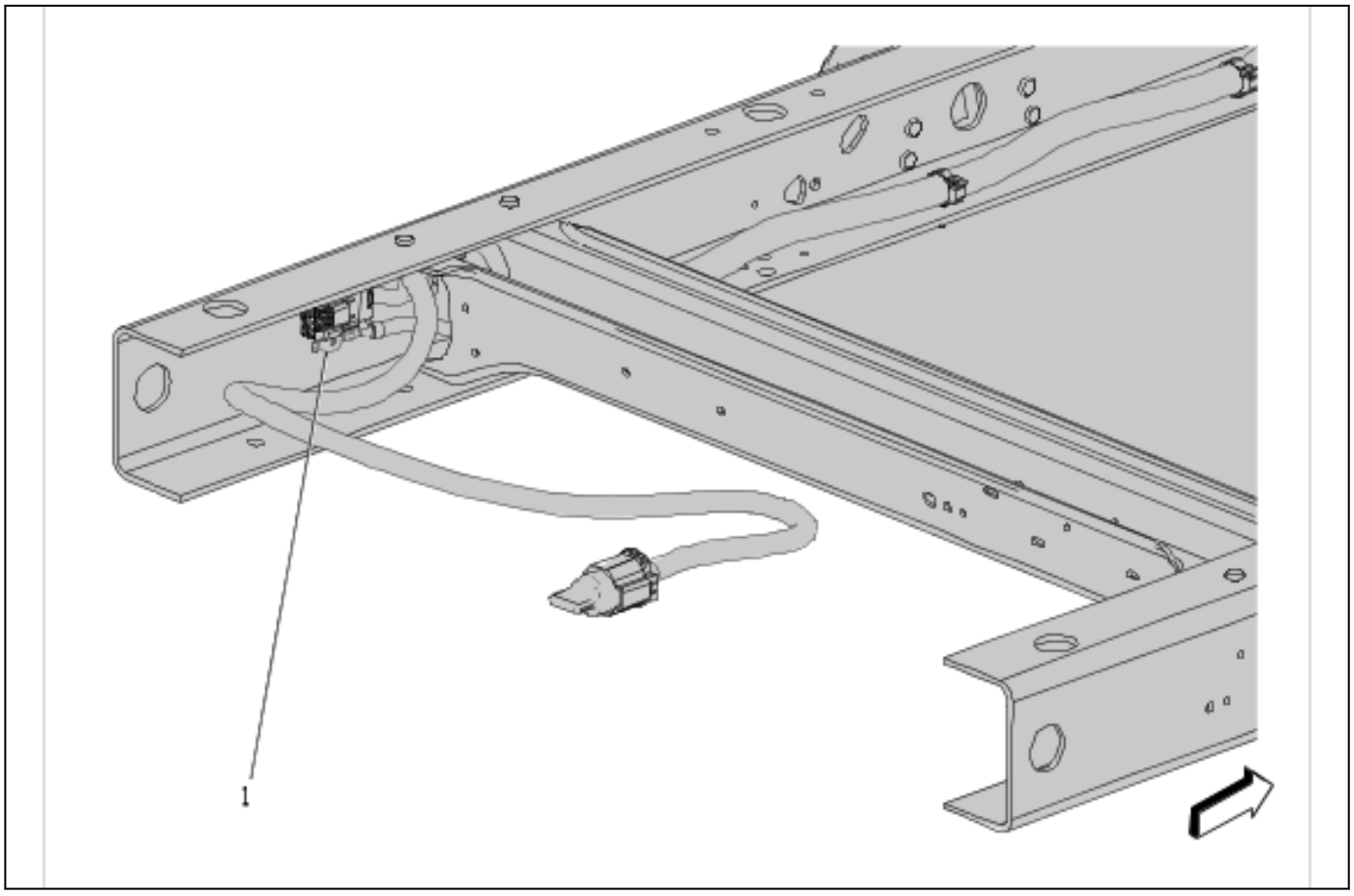
G401 and G402 - Passenger/Cargo



6003038

Items
(1) G401 Body Wiring Harness (Passenger/Cargo)
(2) G402 Body Wiring Harness (Passenger/Cargo)

G404 - Cutaway



6003085

Items
(1) G404 Chassis Wiring Harness

Wiring Systems and Power Management

Schematic and Routing Diagrams

How to Use Electrical Schematics

Information Overview

The following explains some of the key parts of the GM wiring diagrams. Included are:

- Color Abbreviations
- Electronic Delivery Navigation Features

Color Abbreviations

The following sequence is used when depicting wire colors:

1. Color modifier of the wire, such as light or dark (if applicable)
2. Primary color of the wire
3. Secondary color of the wire (tracer/stripe)

Wire insulation and connector body colors in schematic information are abbreviated with a two character code as listed below.

Abbreviation	Color	Abbreviation	Color
AM	Amber	OG	Orange
BARE	Bare	PK	Pink
BG	Beige	PU	Purple
BK	Black	RD	Red
BN	Brown	RU	Rust
BU	Blue	SR	Silver
CL	Clear	TL	Teal
CR	Cream	TN	Tan
CU	Curry	TQ	Turquoise
GD	Gold	VT	Violet
GN	Green	WH	White
GY	Gray	YE	Yellow
NA	Natural	—	—
Color Modifiers			
L	Light	D	Dark

Additionally, industry standard cable types are not identified by color, but are listed by cable type as follows:

Abbreviation	Cable Type
COAX	Coax Cable
ENET	Ethernet
FW	Flat Wire
HDMI	High Definition Multimedia Interface
LVDS	Low-voltage Differential Signaling
TWINAX	Twinax Cable
USB	Universal Serial Bus

Electronic Delivery Navigation Features

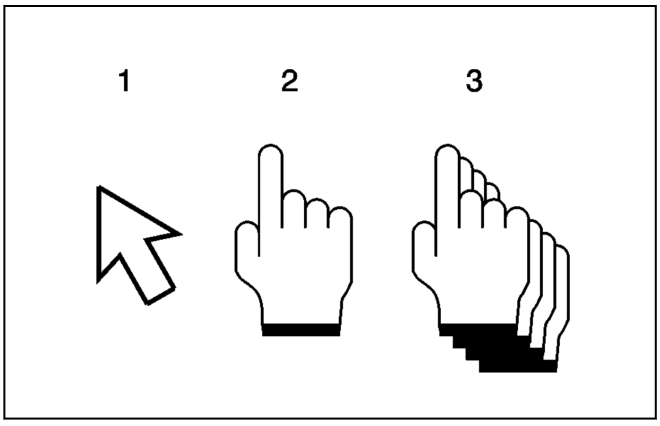
The schematics information has been enhanced for electronic delivery and the following explains the features that are now available.

The enhanced features are categorized into three types:

- Mouse-overs, which are active when the mouse pointer is placed over the activated area

- Hotspots (links to other information), which are active by placing the mouse pointer over the activated area and clicking the left mouse button
- Hotspot Target Highlighting, which is when linking from one graphic to another graphic, the point of interest will be highlighted in red. This feature is available only when linking from a schematic graphic to a component locator/harness routing view, or when linking from a schematic to an electrical center identification view

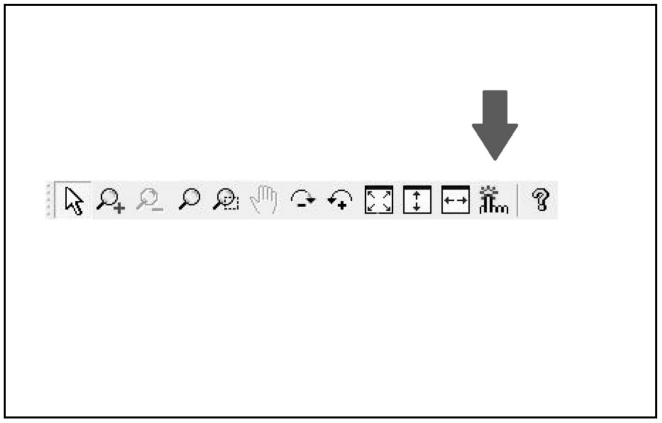
Depending on the amount of information that is linked to from a hotspot, the mouse pointer changes shape.



3819127

1. Basic mouse pointer – this means there are no hotspots available, but there may be a mouse-over available.
2. Single hand pointer – this means there is a mouse-over and hotspot link to a single document. Clicking on these areas will automatically take you to the target link.
3. Multiple hand pointer – this means there is a mouse-over and hotspot link to a multiple document. Clicking on these areas will bring up a pop-up menu that will display all available links. You may then select one of the available links clicking on one of the displayed links.

To see which areas of the schematic information have an available hotspot and/or a mouse-over, select and hold down the highlight hotspots button of the cgm viewer. This will highlight all areas of the graphic that have an available hotspot and/or a mouse-over in red. Once the button is released, the areas of the graphic will no longer be highlighted.



3819130

Each type of schematic related information has some level of these features. The schematic related information consists of the following information types:

- Schematics
- Connector End Views
- Component Locator Views
- Harness Routing Views
- Electrical Center Identification Views
- Master Electrical Component List
- Master Electrical Schematic Icons
- Schematics RPO Code List
- Circuit Number/Wire Colors
- Wire Lines
- Connector Cavities

Schematics

An electrical schematic hotspot is an activated icon or area in the schematic that can be cursor selected to link to additional information. Additionally, each of the hotspots in schematics has a mouse-over.

Hotspots in schematics are categorized into three types:

- Schematic Navigational Icon Hotspots
- Schematic Informational Icon Hotspots
- Schematic Navigational Hotspots

Schematic Navigational Icon Hotspots

The following lists icons that may appear on the upper right corner of a schematic that have an available mouse-over and hotspot.

Icon	Mouse-Over	Hotspot Link to Information
1990537	Master Electrical Component List	Links to the vehicle Master Electrical Component List that shows all electrical components and harness items on the vehicle and has links to any available views
1990538	Title of the subsystem description and operation	Links to the System Description and Operation
1988674	Control Module References	Links to the Control Module References table

Icon	Mouse-Over	Hotspot Link to Information
1990541	Title of the next schematic page	Links to the next schematic of the subsystem schematics
1990542	Title of the previous schematic page	Links to the previous schematic of the subsystem schematics

Schematic Informational Icon Hotspots

The following lists the icons that may appear anywhere on a schematic that have an available mouse-over and hotspot.

Icon	Mouse-Over	Hotspot Link to Information
Danger 1988672	Master Electrical Schematic Icons	Links to the vehicle Master Electrical Schematic Icons list that describes the message for the icon.
High Voltage 1988673	Master Electrical Schematic Icons	Links to the vehicle Master Electrical Schematic Icons list that describes the message for the icon.
Caution 1990543	Master Electrical Schematic Icons	Links to the vehicle Master Electrical Schematic Icons list that describes the message for the icon.
Supplemental Restraint 1988667	Master Electrical Schematic Icons	Links to the vehicle Master Electrical Schematic Icons list that describes the message for the icon.

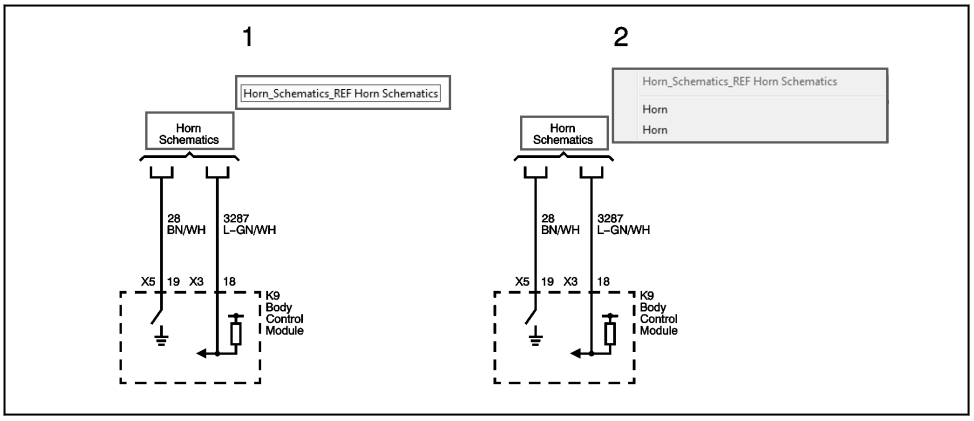
Icon	Mouse-Over	Hotspot Link to Information
Pedestrian Impact 3814889	Master Electrical Schematic Icons	Links to the vehicle Master Electrical Schematic Icons list that describes the message for the icon.
Additional Information 1988670	Master Electrical Schematic Icons	Links to the vehicle Master Electrical Schematic Icons list that describes the message for the icon.

Schematic Navigational Hotspots

In addition to the navigational icons, schematics have other active hotspots that link to supporting information such as related schematics, component locator views, harness routing views, and connector end views.

These hotspots can be either text based or symbol based. The following are the items that will have a mouse-over and hotspot.

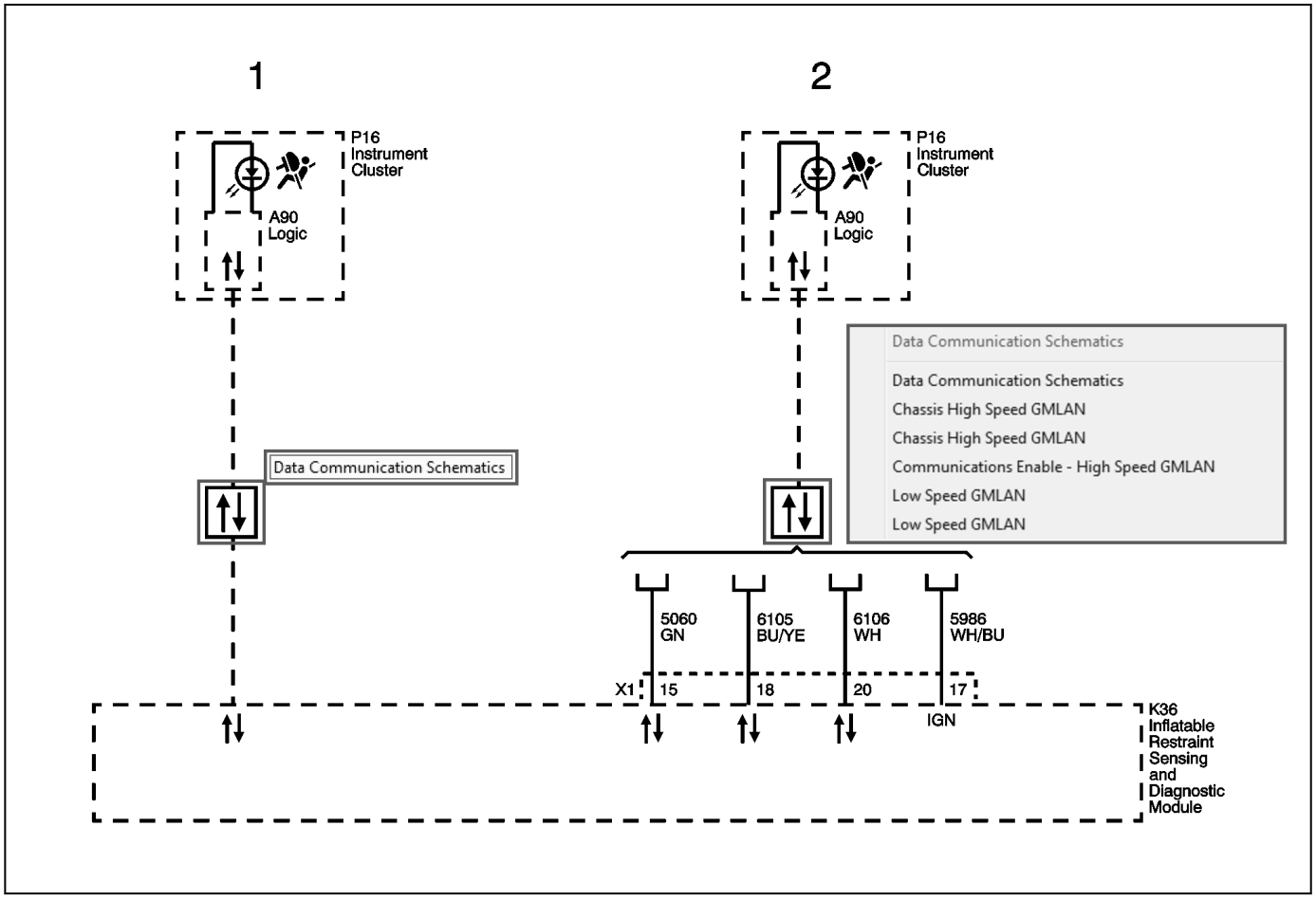
Schematic Title Circuit References



3814891

1. **Mouse-over:** Displays the title of the schematic page linked to.
2. **Hotspot Link to Information:** Links to the individual subsystem schematic page(s) that shows the circuit in detail. If multiple circuits are included, or if the circuit is shown in multiple schematics, a menu will appear when the link is selected. This menu includes links to all schematics that contain the same circuit number as the circuit being referenced. Additionally, when the target schematic is opened, the referenced circuit will be highlighted to draw visual attention. Note that when there are multiple target links, the links may appear to be duplicate in the menu, however, they are not. The exact same title is repeated for each circuit number that is pointing to the same target schematic. A future update will include the circuit number before the link description to further assist in link selection.

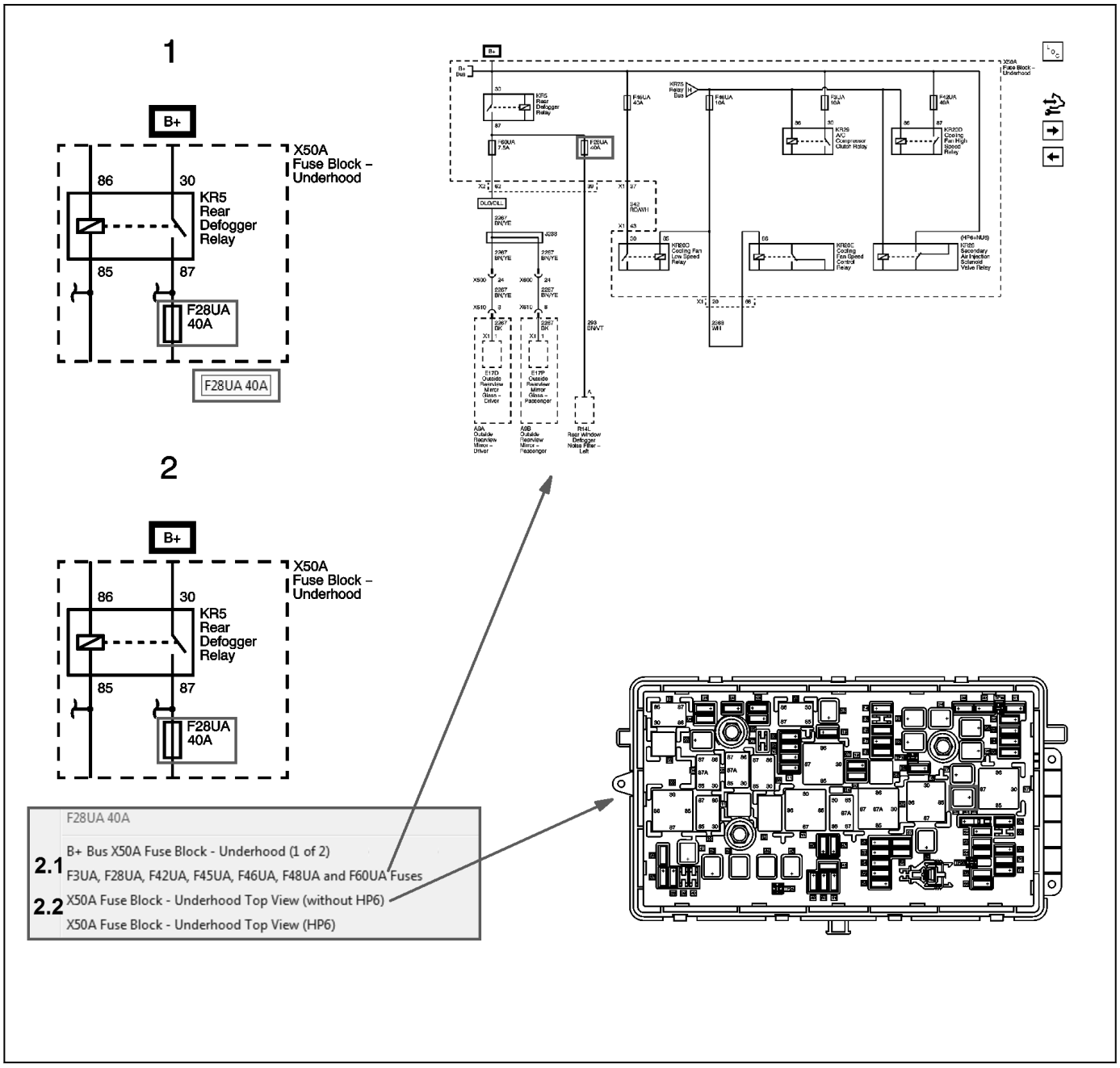
Serial Data Functional Circuit Icon



3818612

1. **Mouse-over:** Displays the schematic title Data Communication Schematics.
2. **Hotspot Link to Information:**
   - ⇒ When a dashed serial data wire and icon are shown without any circuit numbers, the serial data circuit icon will link to the complete list of Data Communication schematic pages, and not a specific schematic. This is due to no circuit numbers are shown.
   - ⇒ When a circuit wire(s) are shown with circuit numbers, a menu will appear when the link is selected. This menu includes links to the list of Data Communication schematic pages as well as links to the individual schematics that contain the same circuit number as the circuit being referenced. Additionally, when the target schematic is opened, the referenced circuit will be highlighted to draw visual attention. Note that when there are multiple target links, the links may appear to be duplicate in the menu, however, they are not. The exact same title is repeated for each circuit number that is pointing to the same target schematic. A future update will include the circuit number before the link description to further assist in link selection.

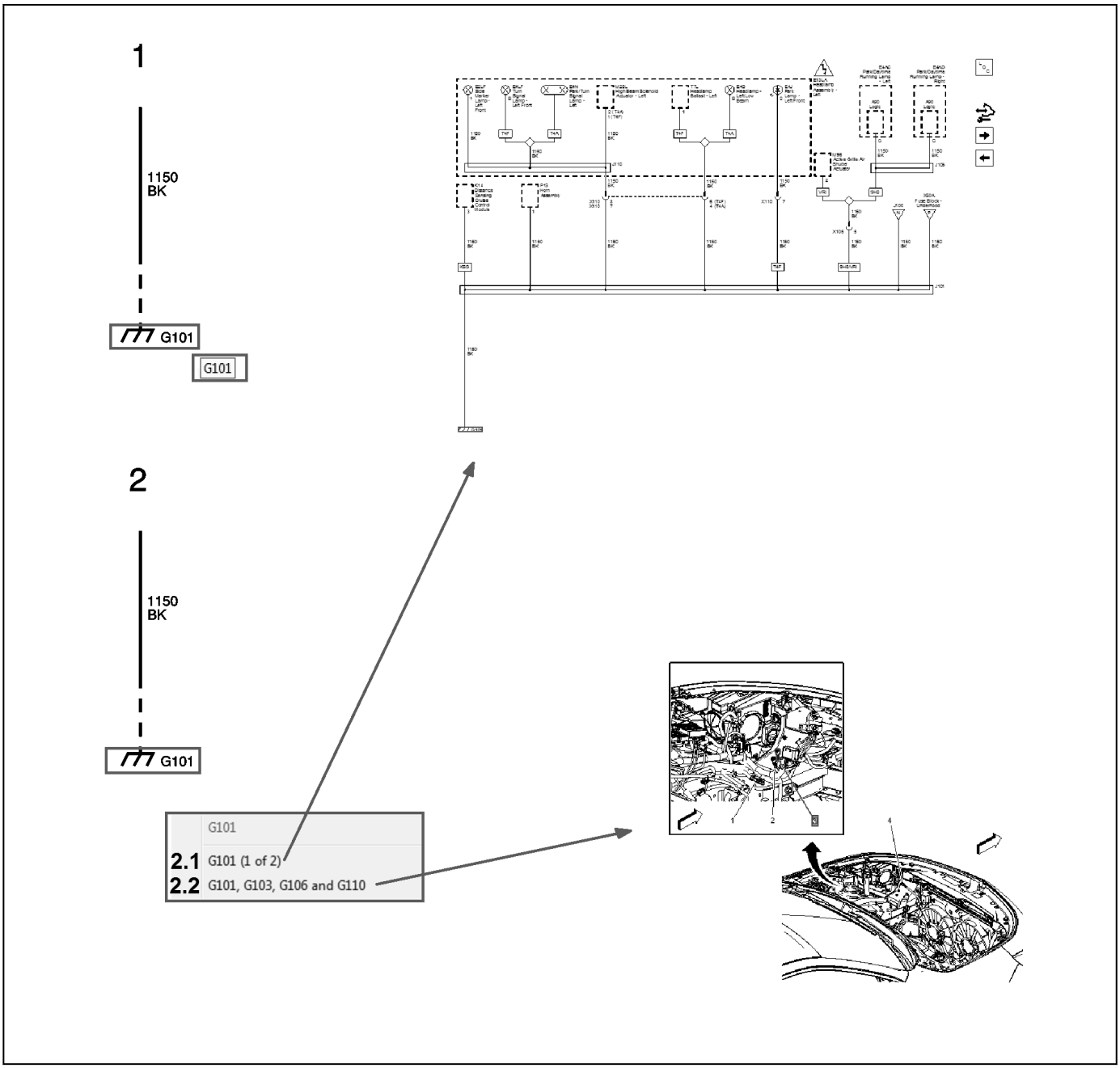
Fuse/Circuit Breaker Symbol and Name within Subsystem Schematics



3818725

1. **Mouse-over:** Displays the code and the amperage of the protection device.
2. **Hotspot Link to Information:**
   ⇒ When multiple links are available, a menu will appear when the link is selected. This menu includes all available links in a structured sequence.
   2.1. Links to the individual schematic page(s) within the Power Distribution Schematics where the circuits are shown in detail. Additionally, when the target schematic is opened, the circuit protection device will be highlighted to draw visual attention.
   2.2. Links to individual fuse block top or bottom view(s) within the Electrical Center Identification Views and will show where the device is located in the fuse block. Additionally, when the target view is opened, the device outline will be highlighted for visual attention.

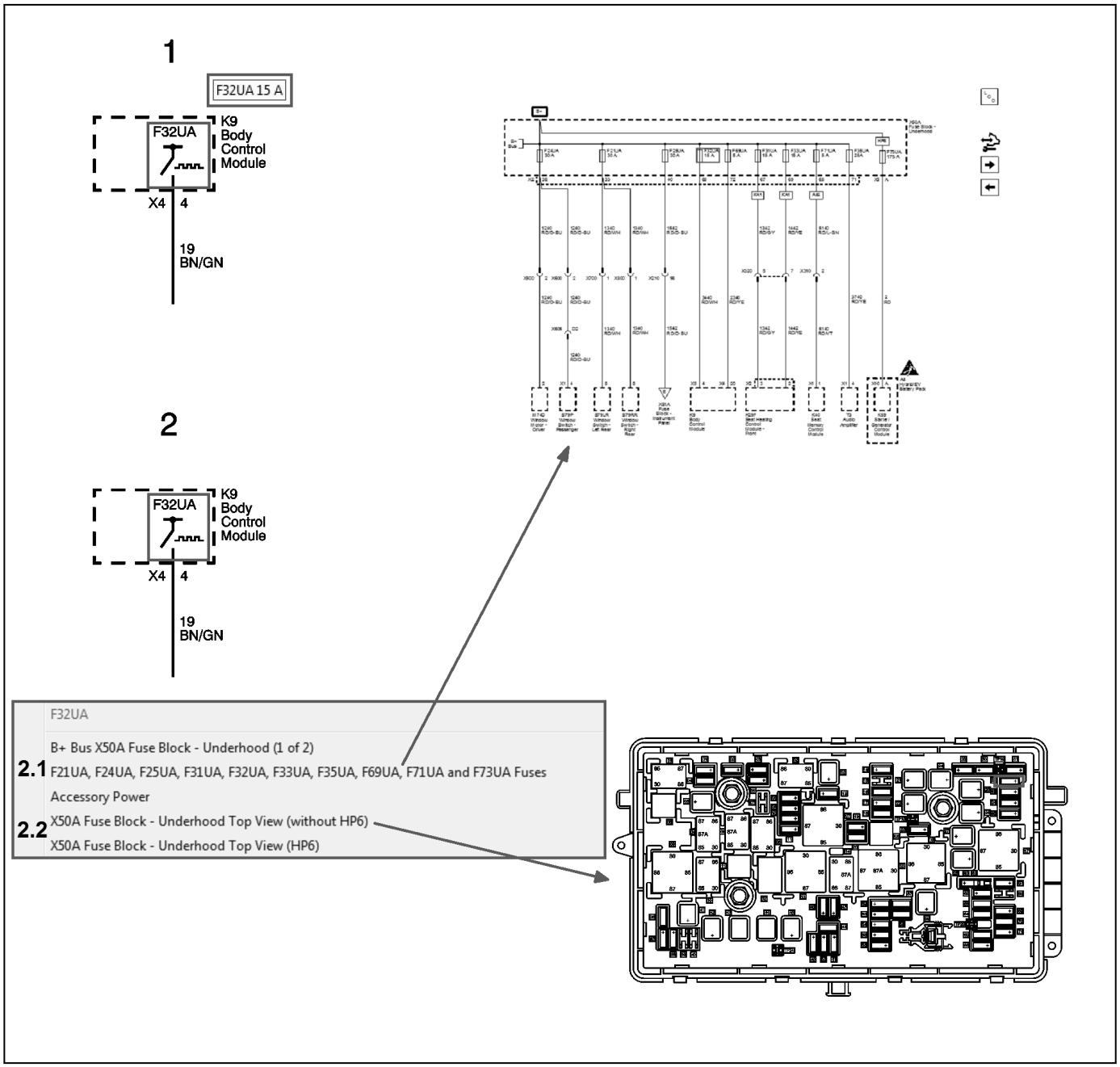
Ground Symbol/Name in Subsystem Schematics



3818918

1. **Mouse-over:** Displays the ground number.
2. **Hotspot Link to Information:**
   - ⇒ When multiple links are available, a menu will appear when the link is selected. This menu includes all available links in a structured sequence.
   - 2.1. Links to the individual schematic page(s) within the Ground Distribution Schematics where the circuits are shown in detail. Additionally, when the target schematic is opened, the ground will be highlighted to draw visual attention.
   - 2.2. Links to the individual locator view(s) within the Ground Views and will show where the ground is located on the vehicle. Additionally, when the target view is opened, the ground and callout leader line/number will be highlighted to draw visual attention.

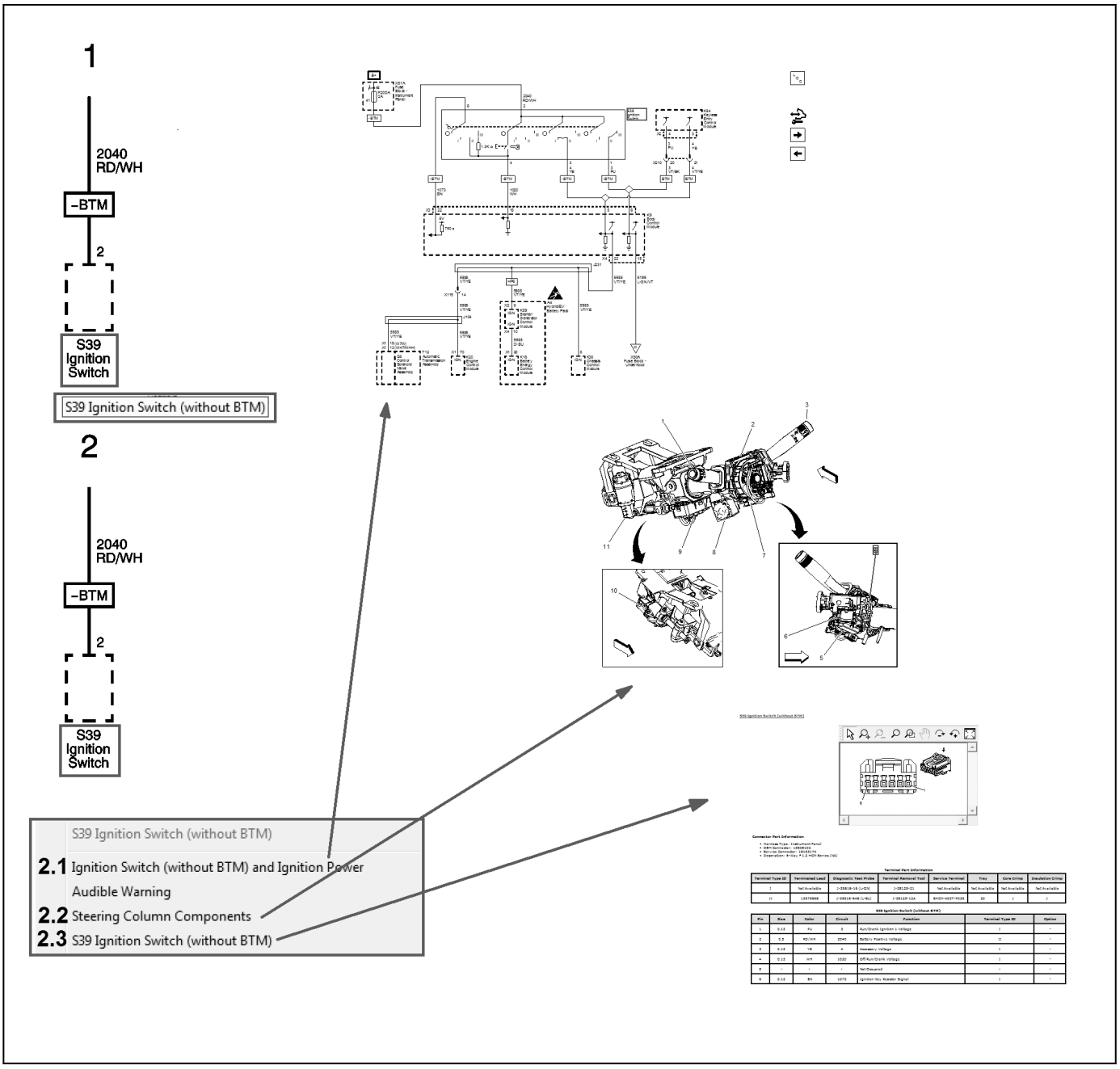
Body Control Module High-Side Driver Output Symbol/Driver Source Fuse Name in Subsystem Schematics



3819026

1. **Mouse-over:** Displays the code of the protection device that supplies the high-side driver output circuit.
2. **Hotspot Link to Information:**
   ⇒ When multiple links are available, a menu will appear when the link is selected. This menu includes all available links in a structured sequence.
   2.1. Links to the individual schematic page(s) within the Power Distribution Schematics where the circuits are shown in detail. Additionally, when the target schematic is opened, the circuit protection device will be highlighted to draw visual attention.
   2.2. Links to individual fuse block top or bottom view(s) within the Electrical Center Identification Views and will show where the device is located in the fuse block. Additionally, when the target view is opened, the device outline will be highlighted for visual attention.

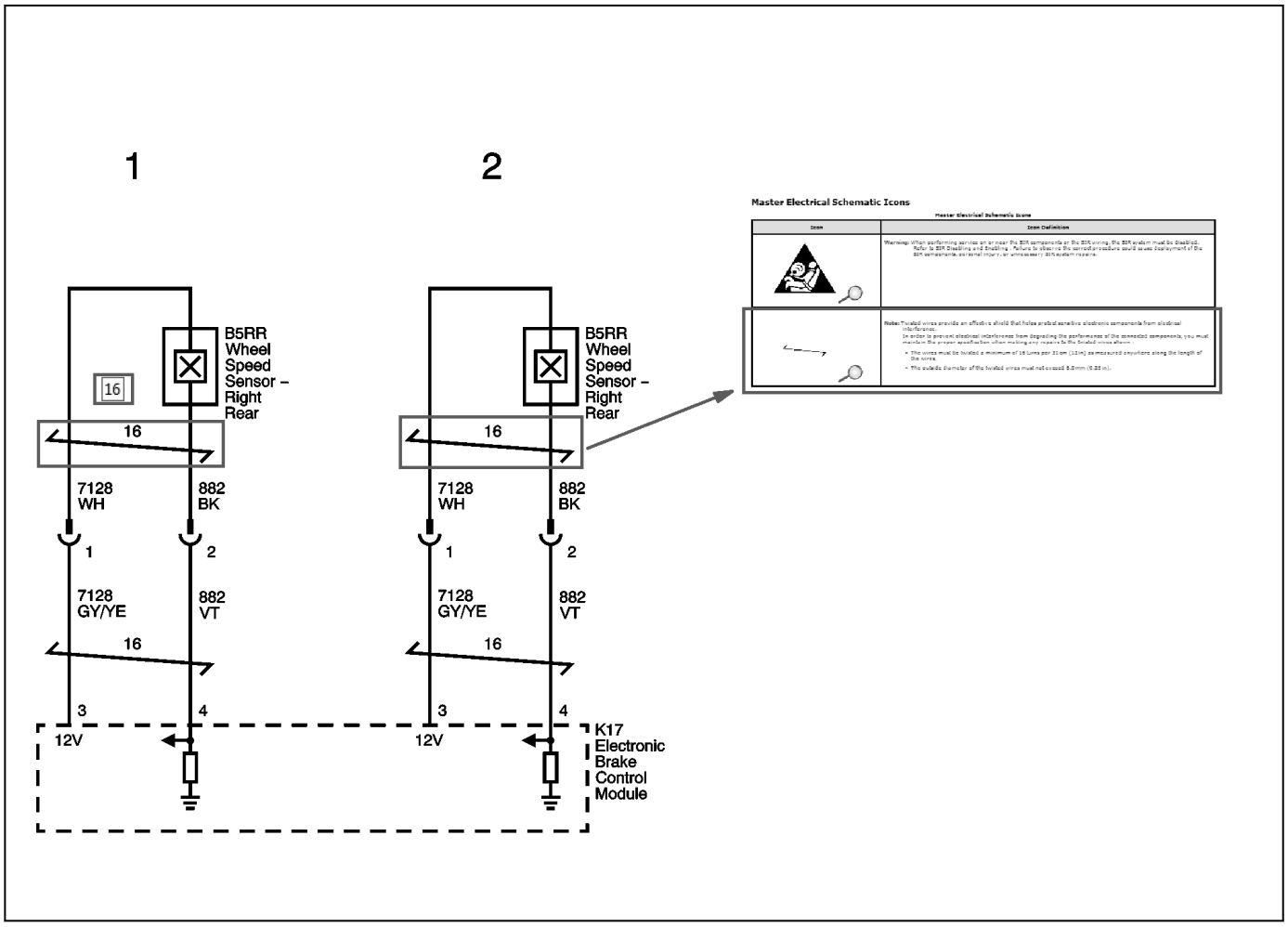
Component Name in Power and Ground Distribution Schematics



3819063

1. **Mouse-over:** Displays the code and name of the component.
2. **Hotspot Link to Information:**
   ⇒ When multiple links are available, a menu will appear when the link is selected. This menu includes all available links in a structured sequence.
   2.1. Links to the individual schematic page(s) within the Subsystem Schematic(s) where the circuits are shown in detail. Additionally, when the target schematic is opened, the component code and name will be highlighted to draw visual attention.
   2.2. Links to the individual locator view(s) within the applicable component view category and will show where the component is located on the vehicle. Additionally, when the target view is opened, the component and callout leader line/number will be highlighted to draw visual attention.
   2.3. Links to individual connector end view(s) within the Component Connector End Views.

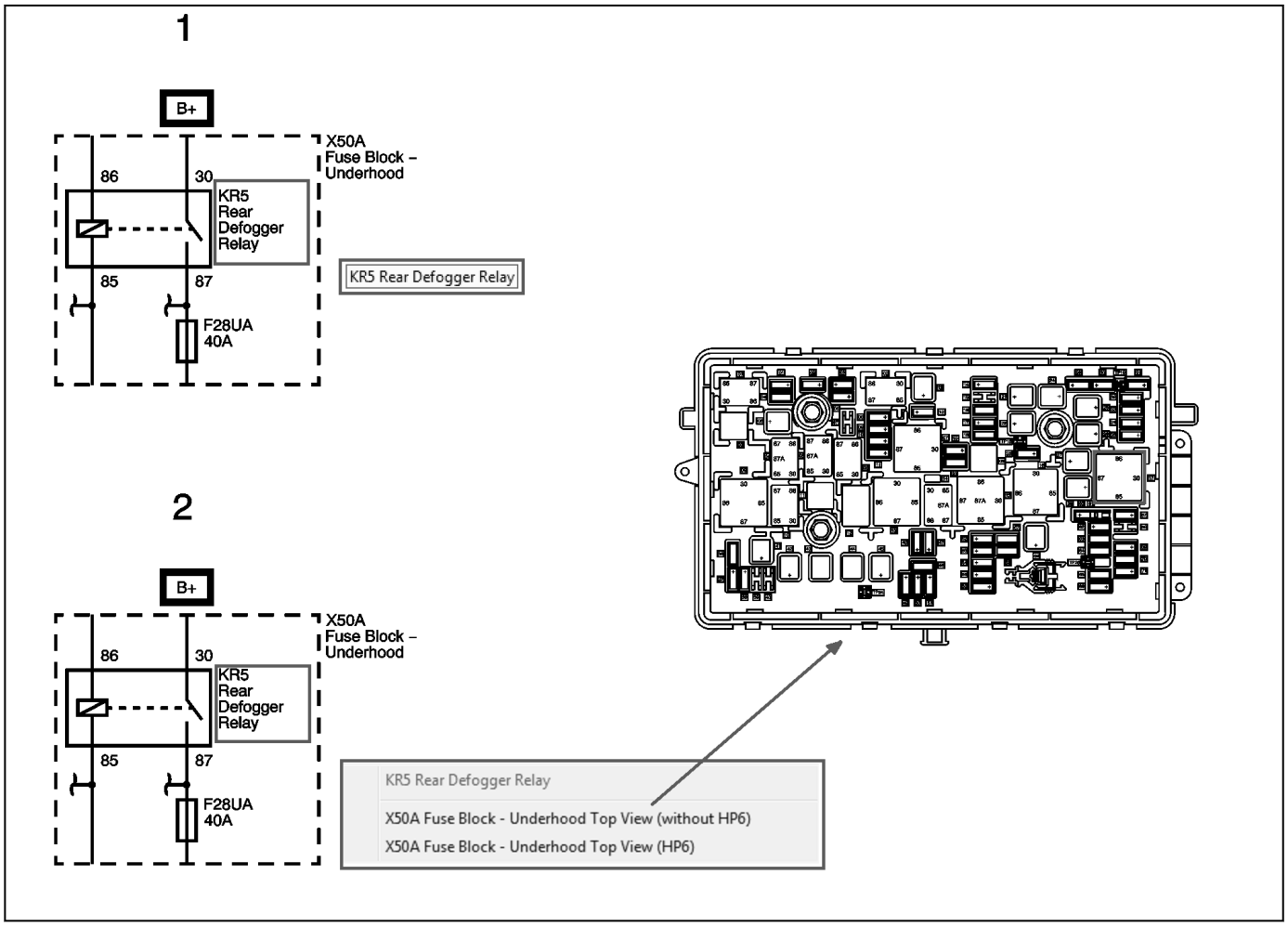
Twisted Pair Symbols



3819064

1. **Mouse-over:** Displays the repair specification for the number of twists of the wire within the specified distance.
2. **Hotspot Link to Information:** Links to the Master Electrical Schematic Icons list that shows the icon along with the repair specification details for the wire.

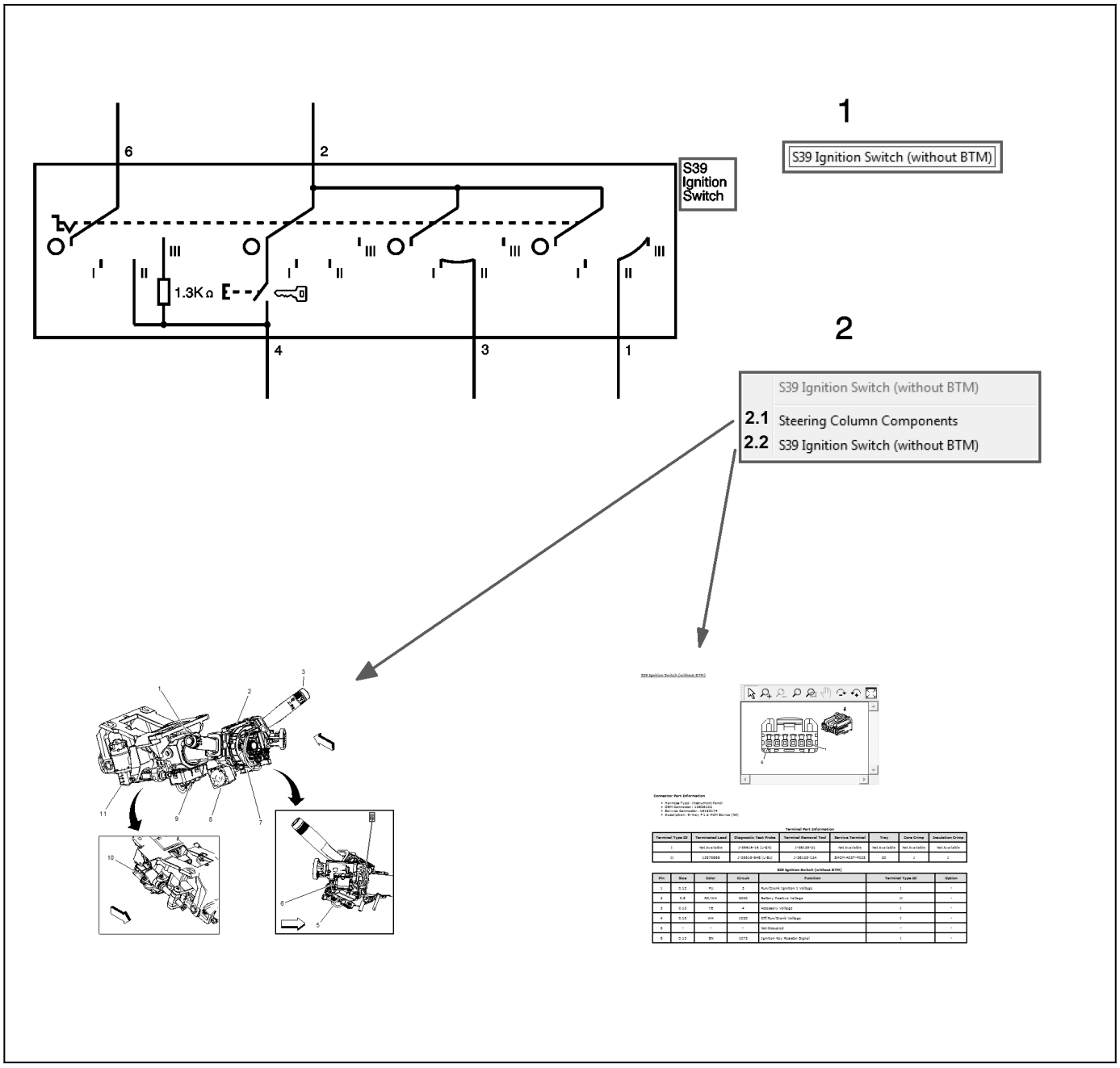
Relay Name (located within a block)



3819124

1. **Mouse-over:** Displays the relay code and name.
2. **Hotspot Link to Information:** Links to individual fuse block top or bottom view(s) within the Electrical Center Identification Views and will show where the device is located in the fuse block. Additionally, when the target view is opened, the device outline will be highlighted for visual attention.

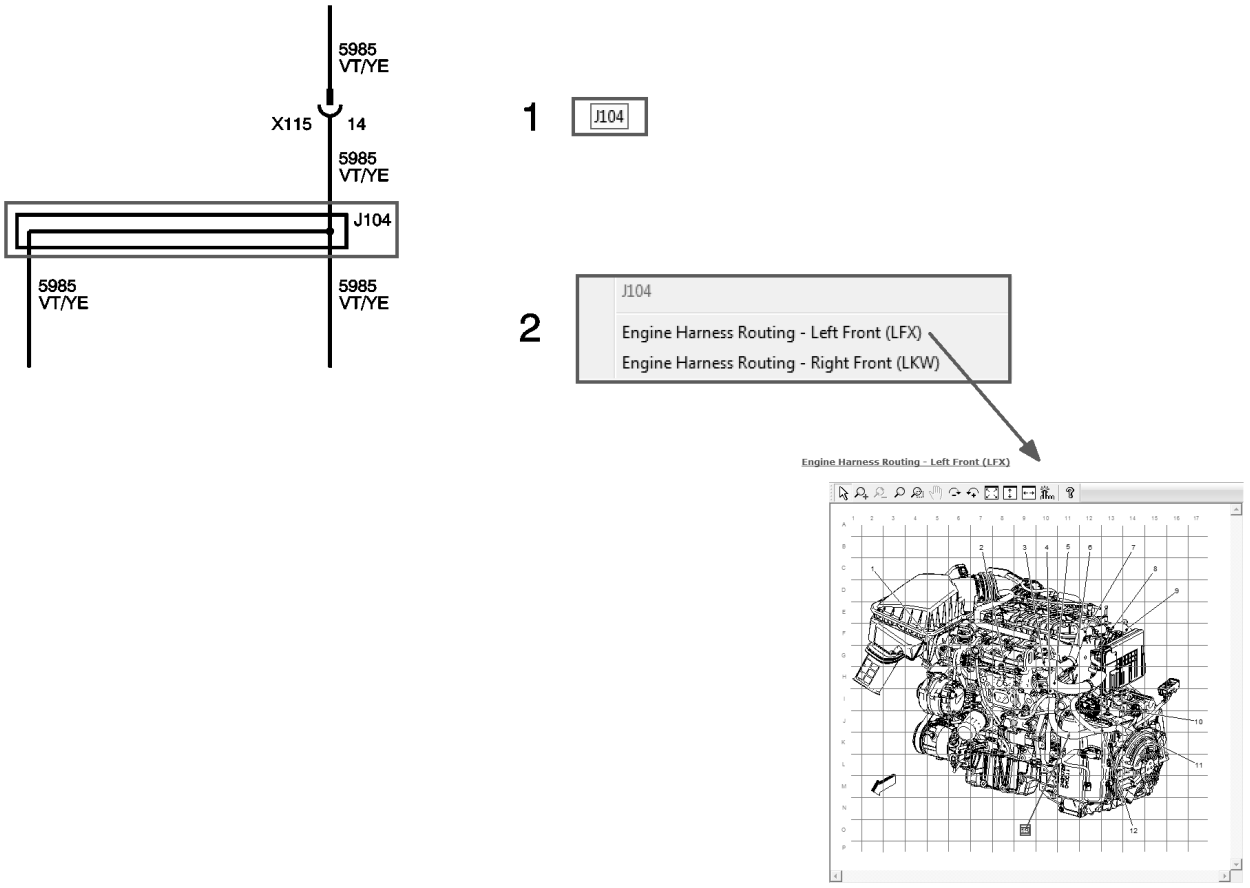
Component Name in Subsystem Schematics



3819141

1. **Mouse-over:** Displays the code and name of the component.
2. **Hotspot Link to Information:**
   ⇒ When multiple links are available, a menu will appear when the link is selected. This menu includes all available links in a structured sequence.
   2.1. Links to the individual locator view(s) within the applicable component view category and will show where the component is located on the vehicle. Additionally, when the target view is opened, the component and callout leader line/number will be highlighted to draw visual attention.
   2.2. Links to individual connector end view(s) within the Component Connector End Views.

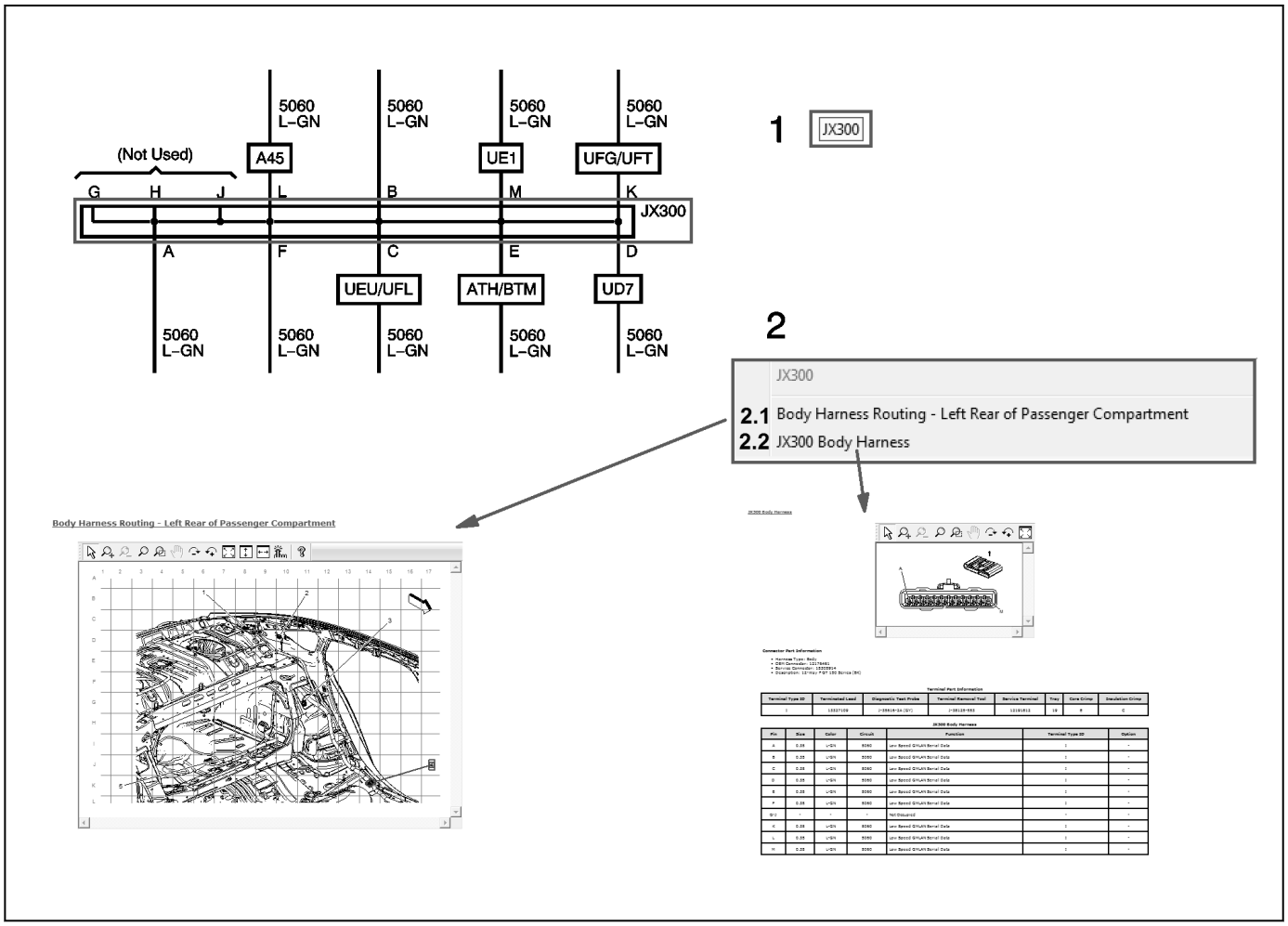
Splice Names



3819287

1. **Mouse-over:** Displays the code of the harness splice.
2. **Hotspot Link to Information:** Links to the individual harness routing view(s) within the Harness Routing Views and will show where the harness item is located on the vehicle harness. Additionally, when the target view is opened, the harness item and callout leader line/number will be highlighted to draw visual attention.

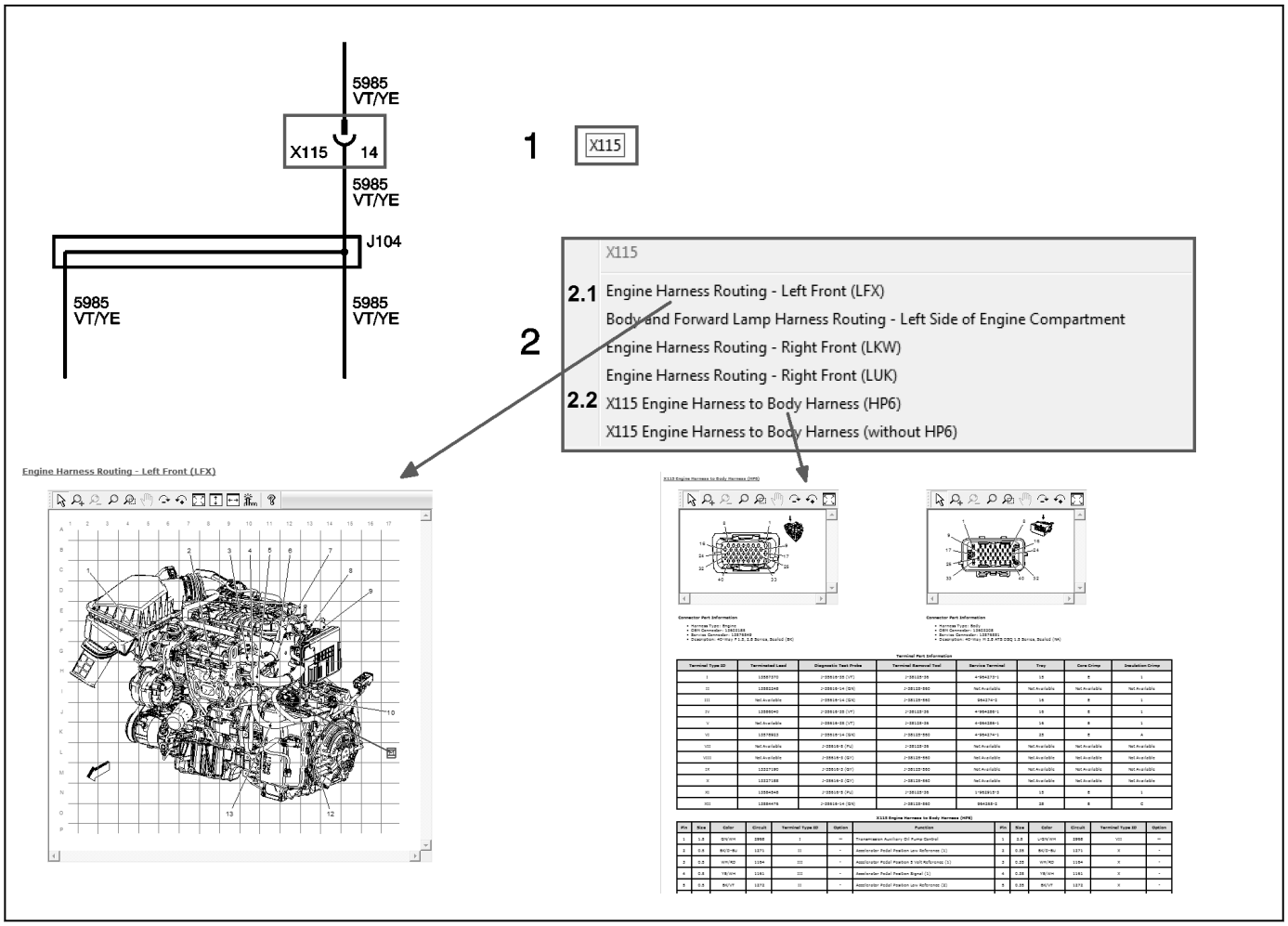
Splice Pack Names



3819454

1. **Mouse-over:** Displays the code of the harness splice pack.
2. **Hotspot Link to Information:**
   ⇒ When multiple links are available, a menu will appear when the link is selected. This menu includes all available links in a structured sequence.
   2.1. Links to the individual harness routing view(s) within the Harness Routing Views and will show where the harness item is located on the vehicle harness. Additionally, when the target view is opened, the harness item and callout leader line/number will be highlighted to draw visual attention.
   2.2. Links to individual connector end view(s) within the Splice Pack Connector End Views.

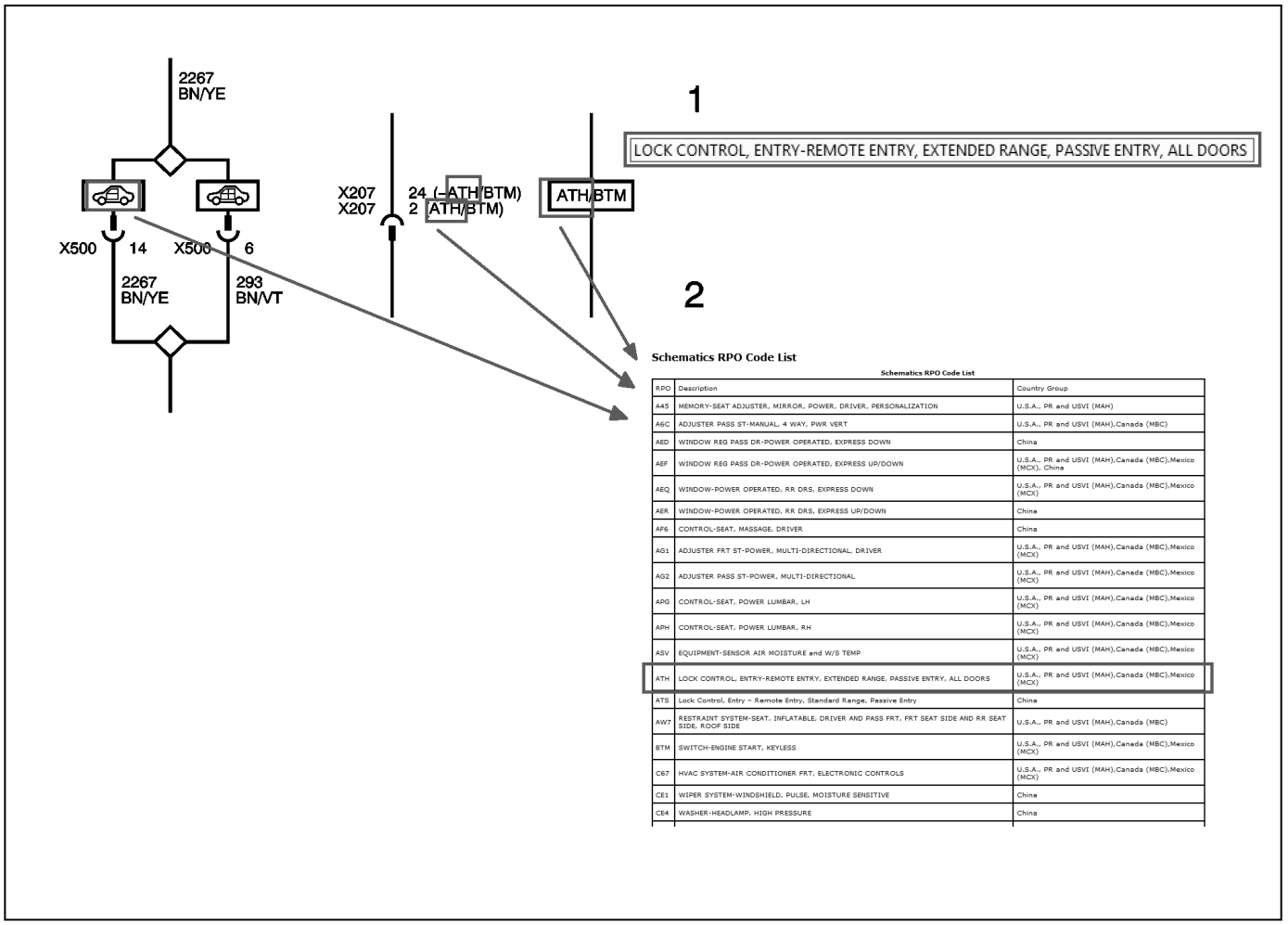
Inline Harness Connector Names



3819345

1. **Mouse-over:** Displays the code of the inline harness connector.
2. **Hotspot Link to Information:**
   ⇒ When multiple links are available, a menu will appear when the link is selected. This menu includes all available links in a structured sequence.
   2.1. Links to the individual harness routing view(s) within the Harness Routing Views and will show where the harness item is located on the vehicle harness. Additionally, when the target view is opened, the harness item and callout leader line/number will be highlighted to draw visual attention.
   2.2. Links to individual connector end view(s) within the Inline Harness Connector End Views.

Regular Production Option (RPO) Codes/Icons



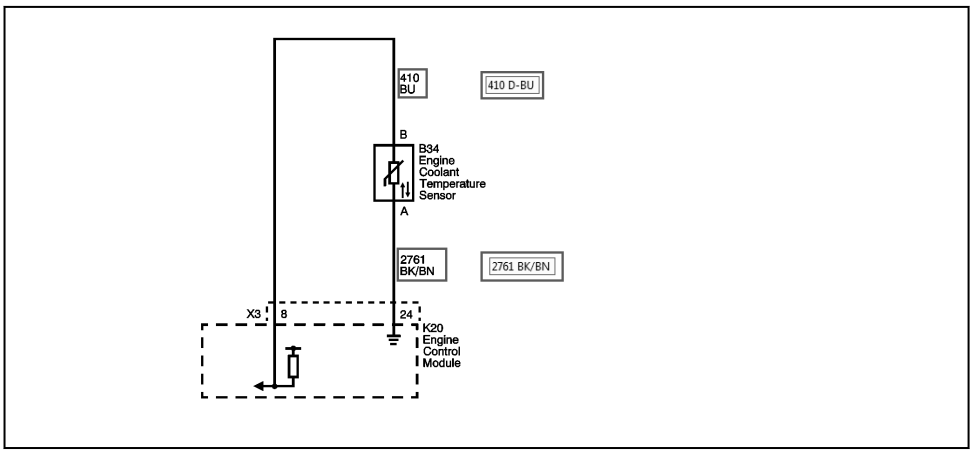
Schematics RPO Code List

RPO	Description	Country Group
A4S	MEMORY-SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION	U.S.A., PR and USVI (MAH)
A6C	ADJUSTER PASS ST-MANUAL, 4 WAY, PWR VERT	U.S.A., PR and USVI (MAH),Canada (MBC)
AED	WINDOW REG PASS DR-POWER OPERATED, EXPRESS DOWN	China
AEF	WINDOW REG PASS DR-POWER OPERATED, EXPRESS UP/DOWN	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX), China
AEQ	WINDOW-POWER OPERATED, RR DRS, EXPRESS DOWN	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
AER	WINDOW-POWER OPERATED, RR DRS, EXPRESS UP/DOWN	China
AF6	CONTROL-SEAT, MASSAGE, DRIVER	China
AG1	ADJUSTER FRT ST-POWER, MULTI-DIRECTIONAL, DRIVER	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
AG2	ADJUSTER PASS ST-POWER, MULTI-DIRECTIONAL	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
APG	CONTROL-SEAT, POWER LUMBAR, LH	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
APH	CONTROL-SEAT, POWER LUMBAR, RH	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
ASV	EQUIPMENT-SENSOR AIR MOISTURE and W/S TEMP	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
ATH	LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
ATS	Lock Control, Entry – Remote Entry, Standard Range, Passive Entry	China
AW7	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER AND PASS FRT, FRT SEAT SIDE AND RR SEAT SIDE, ROOF SIDE	U.S.A., PR and USVI (MAH),Canada (MBC)
BTM	SWITCH-ENGINE START, KEYLESS	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
C67	HVAC SYSTEM-AIR CONDITIONER FRT, ELECTRONIC CONTROLS	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
CE1	WIPER SYSTEM-WINDSHIELD, PULSE, MOISTURE SENSITIVE	China
CE4	WASHER-HEADLAMP, HIGH PRESSURE	China

3819777

1. **Mouse-over:** Displays the description of the RPO code as well as the country group names where the option is possible to order. Note that each RPO shown will have its own mouse-over and description. Also note that the mouse-over does not include any symbols indicating with (shown as a + sign if combined option) or without (shown as a – sign to mean without/except).
2. **Hotspot Link to Information:** Links to the Schematics RPO Code List that shows the RPO, the description of the option, and the country group names where the option is possible to order.

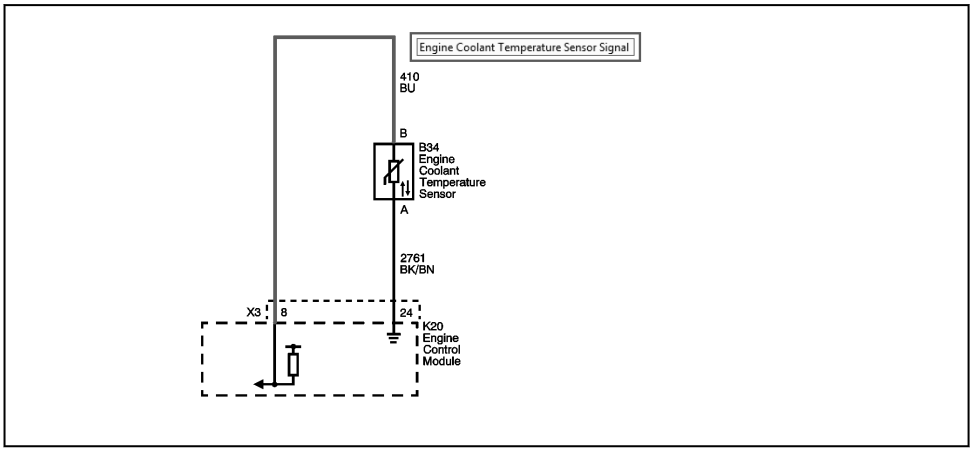
Circuit Number/Wire Colors



3819880

1. **Mouse-over:** Displays the circuit number (if shown) and the color abbreviation of the wire insulation. Refer to Color Abbreviations for an explanation of each wire color abbreviation. A future update may spell out the wire colors in all languages.
2. **Hotspot Link to Information:** None at this time.

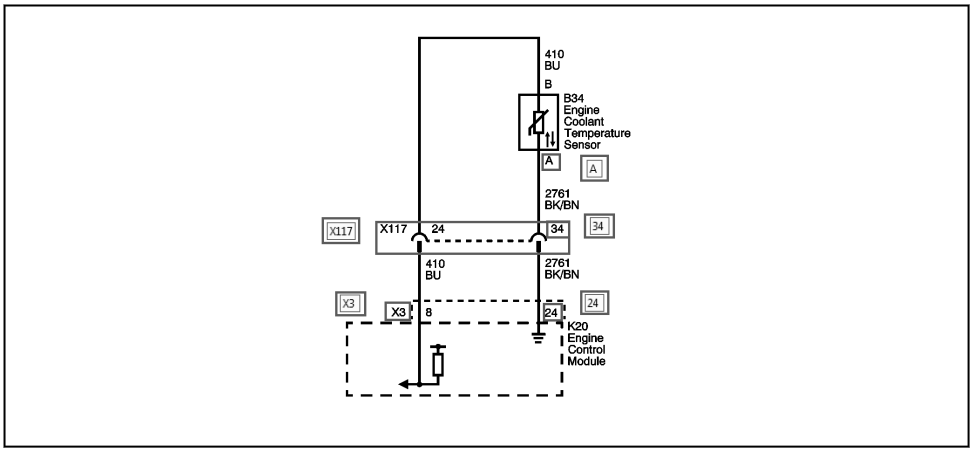
Wire Lines



3819888

1. **Mouse-over:** Displays the circuit function of the wire as used on the vehicle. This same function is shown in the connector end view pinout table for the component the wire connects. Note if there is no circuit number shown, the circuit will not have an associated mouse-over.
2. **Hotspot Link to Information:** None at this time. A future update may include links to harness routing views to show the routing of the circuit within the vehicle harness.

Connector Identifiers and Cavities



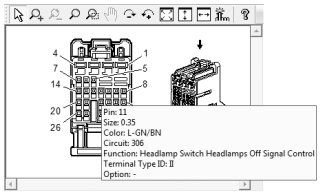
3819889

1. **Mouse-over:** Displays the cavity (pin) identifier (letter/number) for the connection at the component or inline harness connection.
2. **Hotspot Link to Information:** None at this time.

Connector End Views

Connector end view graphics now have mouse-overs to show the wire details of each of the populated cavities. Additionally, the terminal part information has been restructured into an easier to read table.

K9 Body Control Module X1



Connector Part Information

- Harness Type: Instrument Panel
- OEM Connector: 13631051
- Service Connector: 13576639
- Description: 26-Way F 64 Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray	Core Crimp	Insulation Crimp
I	13327199	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	20	E	A
II	13327195	J-35616-64B (L-BU)	J-38125-12A	SNAC3-A021T-M0.64	20	J	J
III	13579954	J-35616-64B (L-BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K9 Body Control Module X1

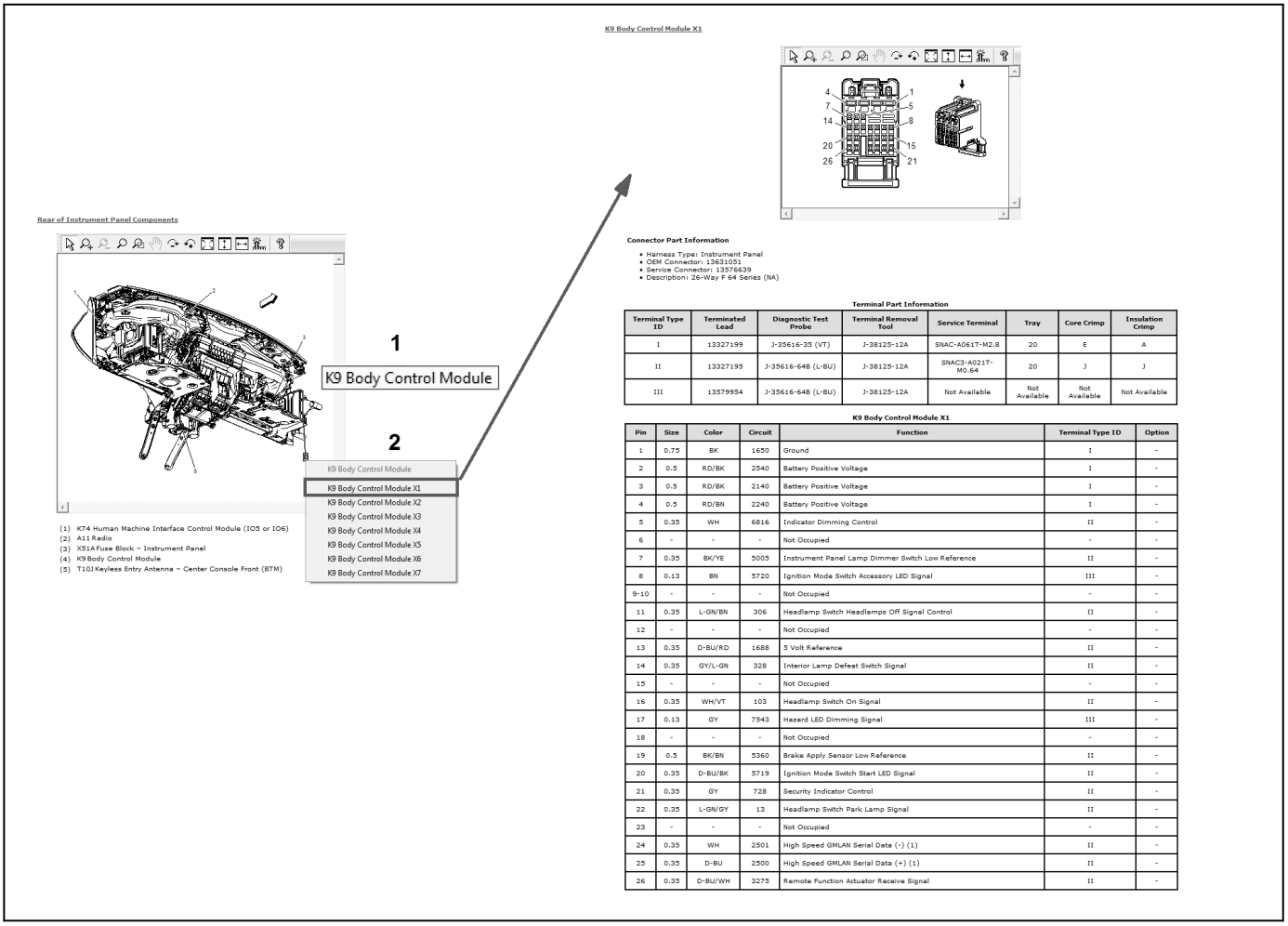
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	1650	Ground	I	-
2	0.5	RD/BK	2540	Battery Positive Voltage	I	-
3	0.5	RD/BK	2140	Battery Positive Voltage	I	-
4	0.5	RD/BN	2240	Battery Positive Voltage	I	-
5	0.35	WH	6816	Indicator Dimming Control	II	-
6	-	-	-	Not Occupied	-	-
7	0.35	BK/YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	II	-
8	0.13	BN	5720	Ignition Mode Switch Accessory LED Signal	III	-
9-10	-	-	-	Not Occupied	-	-
11	0.35	L-GN/BN	306	Headlamp Switch Headlamps Off Signal Control	II	-
12	-	-	-	Not Occupied	-	-
13	0.35	D-BU/RD	1688	5 Volt Reference	II	-
14	0.35	GY/L-GN	328	Interior Lamp Defeat Switch Signal	II	-
15	-	-	-	Not Occupied	-	-
16	0.35	WH/VT	103	Headlamp Switch On Signal	II	-
17	0.13	GY	7543	Hazard LED Dimming Signal	III	-
18	-	-	-	Not Occupied	-	-
19	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	II	-
20	0.35	D-BU/BK	5719	Ignition Mode Switch Start LED Signal	II	-
21	0.35	GY	728	Security Indicator Control	II	-
22	0.35	L-GN/GY	13	Headlamp Switch Park Lamp Signal	II	-
23	-	-	-	Not Occupied	-	-
24	0.35	WH	2501	High Speed GMLAN Serial Data (-) (1)	II	-
25	0.35	D-BU	2500	High Speed GMLAN Serial Data (+) (1)	II	-
26	0.35	D-BU/WH	3275	Remote Function Actuator Receive Signal	II	-

3819951

1. **Mouse-over:** Displays all of the pinout table information for each column including Pin, Size, Color, Circuit, Function, Terminal Type ID, and Option. Note, that not used/not occupied cavities will not have a mouse-over at all. For not used/not occupied cavities, the connector graphic will appear to have a mouse-over, but no information will be displayed in a pop-up menu.
2. **Hotspot Link to Information:** None at this time. A future update may include links to individual subsystem schematic(s) for each circuit.

Component Locator Views

Component locator views now have links to component connector end views.

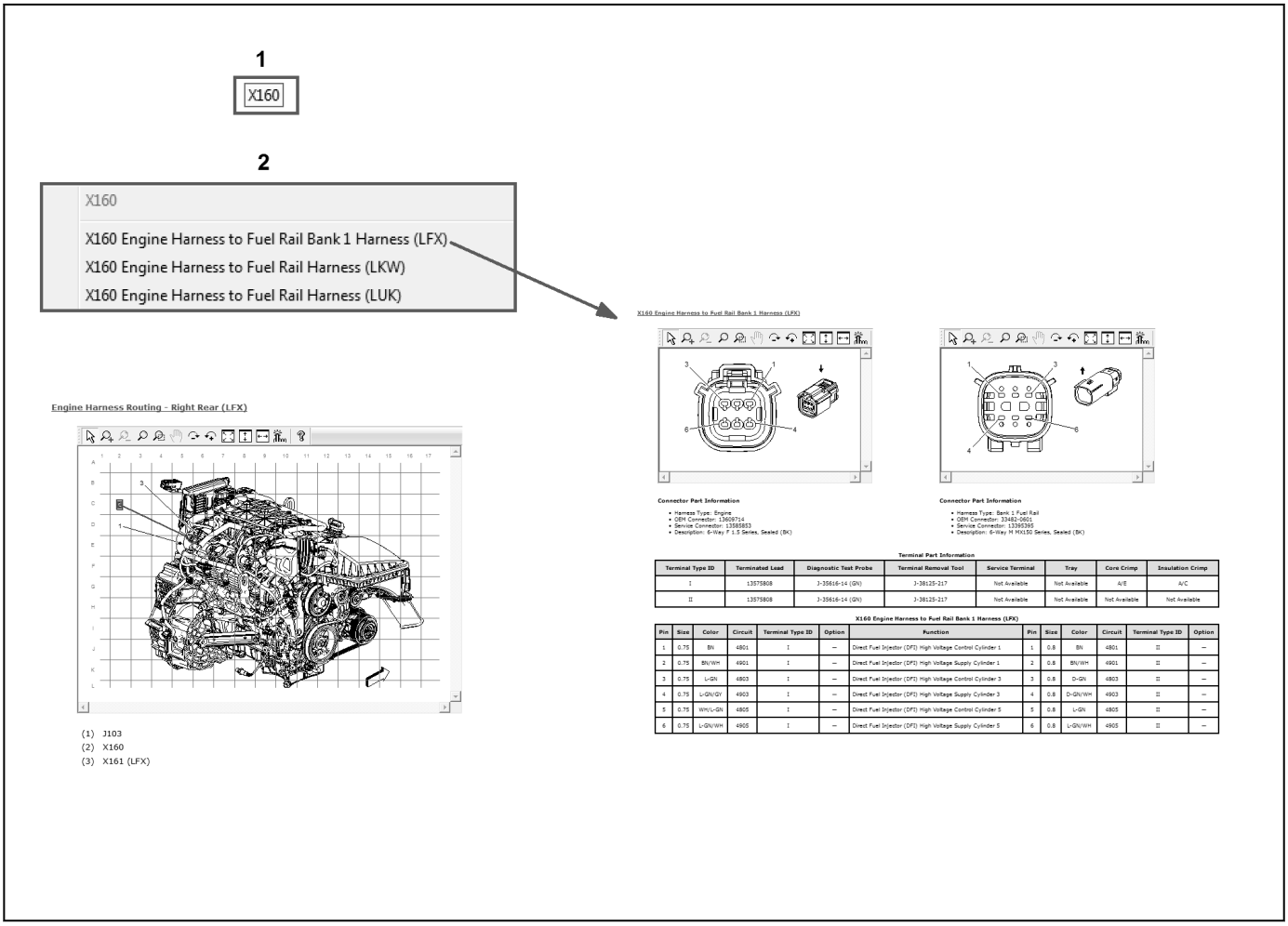

Rear of Instrument Panel Components
1
K9 Body Control Module
2
K9 Body Control Module
K9 Body Control Module X1
K9 Body Control Module X2
K9 Body Control Module X3
K9 Body Control Module X4
K9 Body Control Module X5
K9 Body Control Module X6
K9 Body Control Module X7
(1) K74 Human Machine Interface Control Module (IO5 or IO6)
(2) A11 Radio
(3) X51A Fuse Block – Instrument Panel
(4) K9 Body Control Module
(5) T10J Keyless Entry Antenna – Center Console Front (BTM)
K9 Body Control Module X1
4 1 7 5 14 8 20 15 26 21
Connector Part Information
• Harness Type: Instrument Panel
• OEM Connector: 13631051
• Service Connector: 13576639
• Description: 26-Way F 64 Series (NA)
Terminal Part Information
Terminal Type ID | Terminated Lead | Diagnostic Test Probe | Terminal Removal Tool | Service Terminal | Tray | Core Crimp | Insulation Crimp
I | 13327199 | J-35616-3S (VT) | J-38125-12A | SNAC-A061T-M2.8 | 20 | E | A
II | 13327195 | J-35616-64B (L-BU) | J-38125-12A | SNAC3-A021T-M0.64 | 20 | J | J
III | 13579954 | J-35616-64B (L-BU) | J-38125-12A | Not Available | Not Available | Not Available | Not Available
K9 Body Control Module X1
Pin | Size | Color | Circuit | Function | Terminal Type ID | Option
1 | 0.75 | BK | 1650 | Ground | I | -
2 | 0.5 | RD/BK | 2540 | Battery Positive Voltage | I | -
3 | 0.5 | RD/BK | 2140 | Battery Positive Voltage | I | -
4 | 0.5 | RD/BN | 2240 | Battery Positive Voltage | I | -
5 | 0.35 | WH | 6816 | Indicator Dimming Control | II | -
6 | - | - | - | Not Occupied | - | -
7 | 0.35 | BK/YE | 5005 | Instrument Panel Lamp Dimmer Switch Low Reference | II | -
8 | 0.13 | BN | 5720 | Ignition Mode Switch Accessory LED Signal | III | -
9-10 | - | - | - | Not Occupied | - | -
11 | 0.35 | L-GN/BN | 306 | Headlamp Switch Headlamps Off Signal Control | II | -
12 | - | - | - | Not Occupied | - | -
13 | 0.35 | D-BU/RD | 1688 | 5 Volt Reference | II | -
14 | 0.35 | GY/L-GN | 328 | Interior Lamp Defeat Switch Signal | II | -
15 | - | - | - | Not Occupied | - | -
16 | 0.35 | WH/VT | 103 | Headlamp Switch On Signal | II | -
17 | 0.13 | GY | 7543 | Hazard LED Dimming Signal | III | -
18 | - | - | - | Not Occupied | - | -
19 | 0.5 | BK/BN | 5360 | Brake Apply Sensor Low Reference | II | -
20 | 0.35 | D-BU/BK | 5719 | Ignition Mode Switch Start LED Signal | II | -
21 | 0.35 | GY | 728 | Security Indicator Control | II | -
22 | 0.35 | L-GN/GY | 13 | Headlamp Switch Park Lamp Signal | II | -
23 | - | - | - | Not Occupied | - | -
24 | 0.35 | WH | 2501 | High Speed GMLAN Serial Data (-) (1) | II | -
25 | 0.35 | D-BU | 2500 | High Speed GMLAN Serial Data (+) (1) | II | -
26 | 0.35 | D-BU/WH | 3275 | Remote Function Actuator Receive Signal | II | -

3819952

1. **Mouse-over:** Displays the code and name of the component.
2. **Hotspot Link to Information:** Links to individual connector end view(s) within Component Connector End Views.

Harness Routing Views

Harness routing views now have links to splice pack and inline harness connector end views.


1
X160
2
X160
X160 Engine Harness to Fuel Rail Bank 1 Harness (LFX)
X160 Engine Harness to Fuel Rail Harness (LKW)
X160 Engine Harness to Fuel Rail Harness (LUK)
X160 Engine Harness to Fuel Rail Bank 1 Harness (LFX)
Connector Part Information
Connector Part Information
Terminal Part Information
X160 Engine Harness to Fuel Rail Bank 1 Harness (LFX)
Engine Harness Routing - Right Rear (LFX)
(1) J103
(2) X160
(3) X161 (LFX)

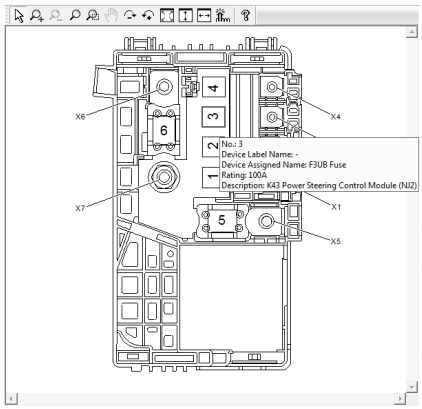
3819958

1. **Mouse-over:** Displays the code of the harness item.
2. **Hotspot Link to Information:** Links to individual splice pack connector end view(s) within Splice Pack Connector End Views for splice packs and to the individual inline harness connector end view(s) within Inline Harness Connector End Views for inline harness connectors.

Electrical Center Identification Views

Electrical center identification views (top and bottom/ front and back) graphics now have mouse-overs to show the function details of each of utilized devices. Note that the label view will not have any mouse-overs or links at all.

X50D Fuse Block - Battery Top View



X50D Fuse Block - Battery Usage

No.	Device Label Name	Device Assigned Name	Rating	Description
1	-	F1UB Fuse	60A	X51A Fuse Block - Instrument Panel
2	-	F2UB Fuse	60A	X51A Fuse Block - Instrument Panel
3	-	F3UB Fuse	100A	K43 Power Steering Control Module (NJ2)
4	-	F4UB Fuse	80A	K43 Power Steering Control Module (NJ1)
5	-	F5UB Fuse	250A	X50A Fuse Block - Underhood
6	-	F6UB Fuse	300A	G13 Generator (without HP6), M64 Starter Motor

3820005

1. **Mouse-over:** Displays all of the usage table information for each column including No., Device Label Name, Device Assigned Name, Rating, and Description. Note, that not used/not occupied devices will not have a mouse-over at all. For not used/not occupied devices, the device graphic may appear to have a mouse-over, but no information will be displayed in a pop-up screen.
2. **Hotspot Link to Information:** None at this time.

Master Electrical Component List

While the master electrical component list format has not changed, it will continue to have links to component locator, harness routing, and connector end views for each of the available electrical devices within the vehicle.

Master Electrical Component List

Master Electrical Component List

Code	Name	Option	Location	Locator View	Connector End View
A3L	Sunshade – Left	–	In the passenger compartment, left front, mounted to the headliner at left front	–	–
A3R	Sunshade – Right	–	In the passenger compartment, right front, mounted to the headliner at right front	–	–
A4	Hybrid/EV battery pack	HP6	In the luggage compartment, right behind rear of the seats	Right Side of Luggage Compartment Components	–
A7	Fuel Pump and Level Sensor Assembly	–	In the vehicle underbody, below rear seats, mounted to fuel tank	Fuel Tank Components	A7 Fuel Pump and Level Sensor Assembly
A9A	Outside Rearview Mirror – Driver	–	On outside of driver door, front middle, forward of window opening	Driver Door Components	–
A9B	Outside Rearview Mirror – Passenger	–	On outside of passenger door, front middle, forward of window opening	Passenger Door Components	–
A10	Inside Rearview Mirror	DD8	In the passenger compartment, front center, mounted to top of windshield	Headliner Components	A10 Inside Rearview Mirror (DD8)
A11	Radio	–	In the passenger compartment, front right in instrument panel, near instrument panel courtesy lamp - right	Rear of Instrument Panel Components	• A11 Radio X1 • A11 Radio X2 • A11 Radio X4 • A11 Radio X6 (U2K or U2M) • A11 Radio X7 (IO3) • A11 Radio X8 (IO3)
A14D	Seat Lumbar Support Pump – Driver	–	In the passenger compartment, left forward of center, in driver seat back outboard side	Driver Seat Components	A14D Seat Lumbar Support Pump - Driver
A14P	Seat Lumbar Support Pump – Passenger	APH	In the passenger compartment, right forward of center, in the passenger seat back outboard side	Passenger Seat Components	A14P Seat Lumbar Support Pump - Passenger (APH)
A15	Starter/Generator	HP6	In the engine compartment, right front of engine	–	• A15 Starter/Generator X1 (HP6) • A15 Starter/Generator X2 (HP6)
A22	Radio Controls	–	In the passenger compartment, center front, part of the info display module, in instrument panel, above HVAC controls	Front of Instrument Panel Components	–
A23D	Door Latch Assembly – Driver	–	Inside the driver door, at rear below middle	Driver Door Components	A23D Door Latch Assembly – Driver
A23LR	Door Latch Assembly – Left Rear	–	Inside the left rear door, at rear below middle	Left Rear Door Components	A23LR Door Latch Assembly - Left Rear
A23P	Door Latch Assembly – Passenger	–	Inside the passenger door, at rear below middle	Passenger Door Components	A23P Door Latch Assembly - Passenger
A23RR	Door Latch Assembly – Right Rear	–	Inside the right rear door, at rear below middle	Right Rear Door Components	A23RR Door Latch Assembly - Right Rear
A24D	Door Handle Assembly – Driver Exterior	ATH	On the outside of driver door, rear middle	Driver Door Components	A24D Door Handle Assembly - Driver Exterior (ATH)
A24LR	Door Handle Assembly - Left Rear Exterior	ATH	On the outside of left rear door, rear middle	Left Rear Door Components	A24LR Door Handle Assembly - Left Rear Exterior (ATH)
A24P	Door Handle Assembly – Passenger Exterior	ATH	On the outside of passenger door, rear middle	Passenger Door Components	A24P Door Handle Assembly - Passenger Exterior (ATH)
A24RR	Door Handle Assembly - Right Rear Exterior	ATH	On the outside of right rear door, rear middle	Right Rear Door Components	A24RR Door Handle Assembly - Right Rear Exterior (ATH)
A26	HVAC Controls	–	In the passenger compartment, front center, on instrument panel, below radio controls	Front of Instrument Panel Components	A26 HVAC Controls
A33	Media Disc Player	–	In the passenger compartment, front center, on instrument panel, below and forward of radio controls	–	A33 Media Disc Player
B1	A/C Refrigerant Pressure Sensor	–	At the front of vehicle, right of center, front of A/C condenser, mounted to right side near bottom	Radiator Assembly Components	• B1 A/C Refrigerant Pressure Sensor (LFX or LUK) • B1 A/C Refrigerant Pressure Sensor (LKW)
B5LF	Wheel Speed Sensor – Left Front	–	At the left front suspension, mounted to knuckle, rearward of axle	Fuel Composition Sensor, Wheel Speed Sensors and Parking Brake	B5LF Wheel Speed Sensor - Left Front
B5LR	Wheel Speed Sensor – Left Rear	–	At the left rear suspension, mounted to knuckle, forward side	Fuel Composition Sensor, Wheel Speed Sensors and Parking Brake	B5LR Wheel Speed Sensor - Left Rear
B5RF	Wheel Speed Sensor – Right Front	–	At the right front suspension, mounted to knuckle, rearward of axle	Fuel Composition Sensor, Wheel Speed Sensors and Parking Brake	B5RF Wheel Speed Sensor - Right Front
B5RR	Wheel Speed Sensor – Right Rear	–	At the right rear suspension, mounted to knuckle, forward side	Fuel Composition Sensor, Wheel Speed Sensors and Parking Brake	B5RR Wheel Speed Sensor - Right Rear
B7D	Air Temperature Sensor – Duct Left Lower	CJ2	In the passenger compartment, within the instrument panel, center front, left side middle of HVAC assembly	HVAC Assembly Components (CJ2)	B7D Air Temperature Sensor - Duct Left Lower (CJ2)
B7E	Air Temperature Sensor – Duct Right Lower	CJ2	In the passenger compartment, within the instrument panel, center front, right side middle of HVAC assembly	HVAC Assembly Components (CJ2)	B7E Air Temperature Sensor - Duct Right Lower (CJ2)
B7H	Air Temperature Sensor – Duct Left Upper	CJ2	In the passenger compartment, within the instrument panel, center front, left side top of HVAC assembly	HVAC Assembly Components (CJ2)	B7H Air Temperature Sensor - Duct Left Upper (CJ2)
B7J	Air Temperature Sensor – Duct Right Upper	CJ2	In the passenger compartment, within the instrument panel, center front, right side top of HVAC assembly	HVAC Assembly Components (CJ2)	B7J Air Temperature Sensor - Duct Right Upper (CJ2)
B9	Ambient Air Temperature Sensor	–	At the front of vehicle, left of center, mounted to rear of lower grille	Front of Vehicle Components	B9 Ambient Air Temperature Sensor
B10B	Ambient Light/Sunload Sensor	–	In the passenger compartment, center front, in instrument panel, rear of windshield defroster outlet	Front of Instrument Panel Components	B10B Ambient Light/Sunload Sensor
B12A	Transmission Fluid Pressure Switch	–	In the engine compartment, part of the control solenoid valve assembly, mounted to the valve body inside the transmission	–	–
B13	Transmission Fluid Temperature Sensor	–	In the engine compartment, part of the control solenoid valve assembly, mounted to the valve body inside the transmission	–	–

3820020

1. **Mouse-over:** None at this time.
2. **Hotspot Link to Information:**

⇒ A future update may include links to individual subsystem schematic(s) for each component/ harness item.

⇒ **Components**

− Links to individual locator view within one of the eight component view categories and will show where the component is located in the vehicle.

− Links to individual connector end view(s) within Component Connector End Views.

⇒ **Electrical Centers (Fuse Blocks)**

− Links to individual locator view within one of the eight component view categories and will show where the component is located in the vehicle.

− Links to individual connector end view(s) within Electrical Center Identification Views.

⇒ **Inline Harness Connectors**

− Links to individual harness routing view(s) within Harness Routing Views and will show where the harness item is located on the vehicle harness.

− Links to individual connector end view(s) within Inline Harness Connector End Views.

⇒ **Grounds**

- Links to individual locator view within Ground Views component view and will show where the ground is located in the vehicle.

⇒ **Splices**

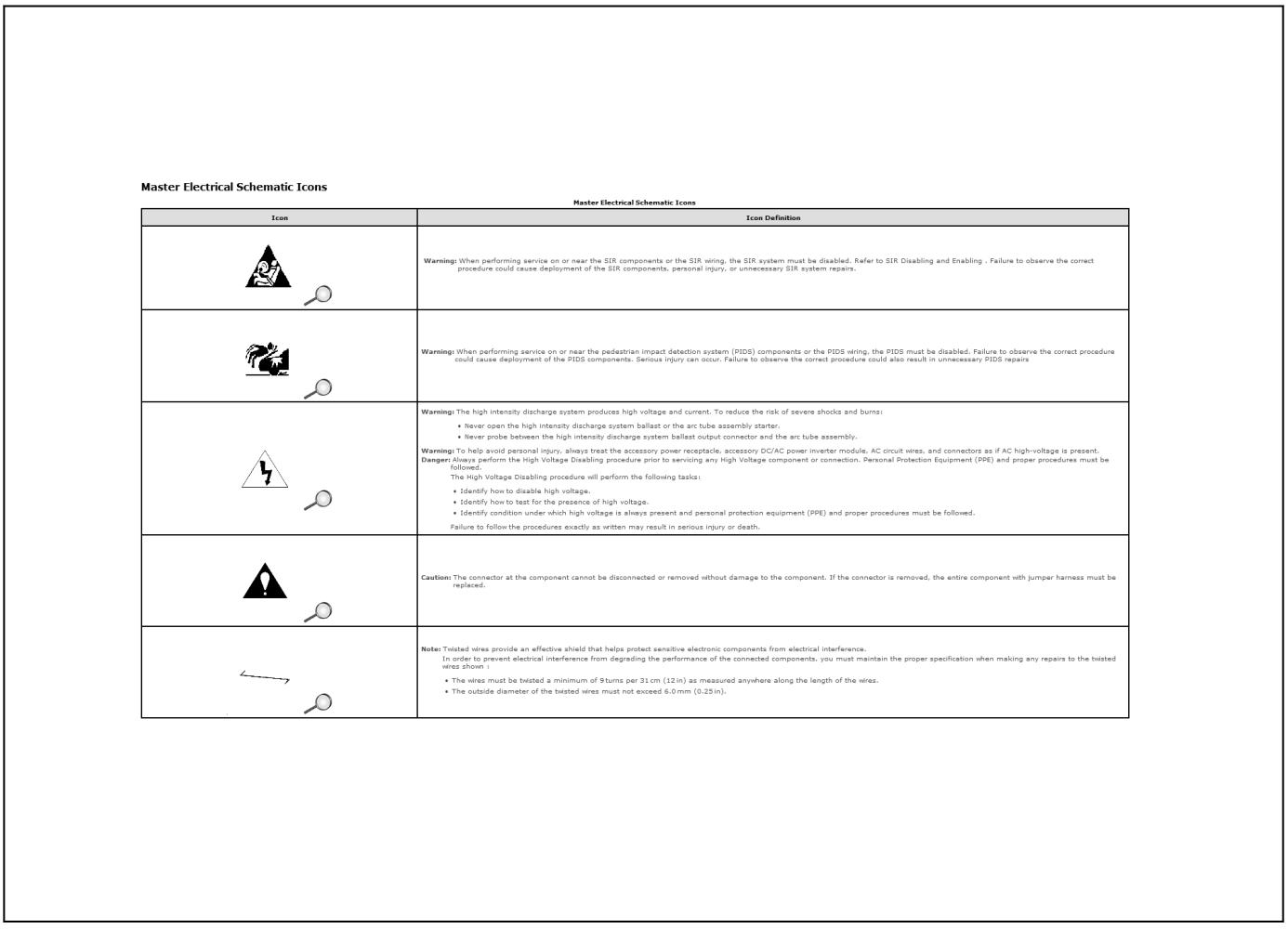
- Links to individual harness routing view(s) within Harness Routing Views and will show where the harness item is located on the vehicle harness.

⇒ **Splice Packs**

- Links to individual harness routing view(s) within Harness Routing Views and will show where the harness item is located on the vehicle harness.
- Links to individual connector end view(s) within Splice Pack Connector End Views.

Master Electrical Schematic Icons

While the master electrical schematic icons list format has not changed, it will continue to include icons used in the vehicle schematics along with the message for the icon.



Master Electrical Schematic Icons

Master Electrical Schematic Icons

Icon	Icon Definition
	Warning: When performing service on or near the SIR components or the SIR wiring, the SIR system must be disabled. Refer to SIR Disabling and Enabling . Failure to observe the correct procedure could cause deployment of the SIR components, personal injury, or unnecessary SIR system repairs.
	Warning: When performing service on or near the pedestrian impact detection system (PIDS) components or the PIDS wiring, the PIDS must be disabled. Failure to observe the correct procedure could cause deployment of the PIDS components. Serious injury can occur. Failure to observe the correct procedure could also result in unnecessary PIDS repairs
	Warning: The high intensity discharge system produces high voltage and current. To reduce the risk of severe shocks and burns: • Never open the high intensity discharge system ballast or the arc tube assembly starter. • Never probe between the high intensity discharge system ballast output connector and the arc tube assembly. **Warning:** To help avoid personal injury, always treat the accessory power receptacle, accessory DC/AC power inverter module, AC circuit wires, and connectors as if AC high-voltage is present. **Danger:** Always perform the High Voltage Disabling procedure prior to servicing any High Voltage component or connection. Personal Protection Equipment (PPE) and proper procedures must be followed. The High Voltage Disabling procedure will perform the following tasks: • Identify how to disable high voltage. • Identify how to test for the presence of high voltage. • Identify condition under which high voltage is always present and personal protection equipment (PPE) and proper procedures must be followed. Failure to follow the procedures exactly as written may result in serious injury or death.
	Caution: The connector at the component cannot be disconnected or removed without damage to the component. If the connector is removed, the entire component with jumper harness must be replaced.
	Note: Twisted wires provide an effective shield that helps protect sensitive electronic components from electrical interference. In order to prevent electrical interference from degrading the performance of the connected components, you must maintain the proper specification when making any repairs to the twisted wires shown : • The wires must be twisted a minimum of 9 turns per 31 cm (12 in) as measured anywhere along the length of the wires. • The outside diameter of the twisted wires must not exceed 6.0 mm (0.25 in).

3820510

1. **Mouse-over:** None at this time.
2. **Hotspot Link to Information:** None at this time.

Schematic RPO Code List

The schematic RPO code list only includes RPOs shown in schematics and also includes the country groupings for the options. This list is in addition to the vehicle RPO Code List that is included in General Information.

Schematics RPO Code List

Schematics RPO Code List

RPO	Description	Country Group
A45	MEMORY-SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION	U.S.A., PR and USVI (MAH)
A6C	ADJUSTER PASS ST-MANUAL, 4 WAY, PWR VERT	U.S.A., PR and USVI (MAH),Canada (MBC)
AED	WINDOW REG PASS DR-POWER OPERATED, EXPRESS DOWN	China
AEF	WINDOW REG PASS DR-POWER OPERATED, EXPRESS UP/DOWN	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX), China
AEQ	WINDOW-POWER OPERATED, RR DRS, EXPRESS DOWN	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
AER	WINDOW-POWER OPERATED, RR DRS, EXPRESS UP/DOWN	China
AF6	CONTROL-SEAT, MASSAGE, DRIVER	China
AG1	ADJUSTER FRT ST-POWER, MULTI-DIRECTIONAL, DRIVER	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
AG2	ADJUSTER PASS ST-POWER, MULTI-DIRECTIONAL	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
APG	CONTROL-SEAT, POWER LUMBAR, LH	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
APH	CONTROL-SEAT, POWER LUMBAR, RH	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
ASV	EQUIPMENT-SENSOR AIR MOISTURE and W/S TEMP	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
ATH	LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
ATS	Lock Control, Entry – Remote Entry, Standard Range, Passive Entry	China
AW7	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER AND PASS FRT, FRT SEAT SIDE AND RR SEAT SIDE, ROOF SIDE	U.S.A., PR and USVI (MAH),Canada (MBC)
BTM	SWITCH-ENGINE START, KEYLESS	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
C67	HVAC SYSTEM-AIR CONDITIONER FRT, ELECTRONIC CONTROLS	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
CE1	WIPER SYSTEM-WINDSHIELD, PULSE, MOISTURE SENSITIVE	China
CE4	WASHER-HEADLAMP, HIGH PRESSURE	China
CF5	ROOF-SUN, GLASS, SLIDING, ELEC	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
CJ2	HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
CZ2	COUNTRY-CHINA	China
DD8	MIRROR I/S R/V-LT SENSITIVE	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
EF7	COUNTRY-UNITED STATES OF AMERICA (USA)	U.S.A., PR and USVI (MAH)
F45	CHASSIS-CONTINUOUSLY VARIABLE REAL TIME DAMPING	U.S.A., PR and USVI (MAH),Canada (MBC)
FHS	VEHICLE FUEL-GASOLINE E85	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
HP6	HYBRID PROPULSION-ELECTRIC, PARALLEL, 14KW CONTINUOUS POWER	U.S.A., PR and USVI (MAH),Canada (MBC)
J71	BRAKE PARKING-POWER OPERATED	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
KA1	HEATER SEAT FRT-DRVR and PASS	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
KD4	RECEPTACLE-ELECTRICAL, FRT CONSOLE	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
KI6	RECEPTACLE-ELECTRICAL, FRT CONSOLE RR 110 VOLT	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
KRJ	CONTROL-CONSOLE, INFOTAINMENT, REDUNDANT CONTROLS, JOYSTICK	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
KTA	AUDIO INTERFACE-	China
KU1	VENTILATED SEAT DRVR-FRONT	U.S.A., PR and USVI (MAH)
KU3	VENTILATED SEAT PASS-FRONT	U.S.A., PR and USVI (MAH)
LAF	ENGINE-GAS, 4 CYL, 2.4L, SIDI,DOHC, VVT, ALUM, GM - DO NOT USE AFTER 2013, USE LEA	China
LDK	ENGINE-GAS, 4 CYL, 2.0L, DI, DOHC, TURBO-HO, VARIABLE CAMSHAFT PHASING - DO NOT USE AFTER 2013, USE LHU	China
LHU	ENGINE-GAS, 2.0L, SIDI, L4, DOHC TURBO, E85 MAX, ALUM	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
LLU	ENGINE-GAS, 4 CYL, 1.6L, MFI, DOHC, TURBO, PT-JV, 132KW	China
LTD	ENGINE-GAS, 4 CYL, 2.0L, MFI, ALUM, DOHC, SGM	China
LUK	ENGINE-GAS, 4 CYL, 2.4L, DI, ALUM, DOHC, BAS, ECOTEC	U.S.A., PR and USVI (MAH),Canada (MBC)
MDK	TRANSMISSION-AUTO 6 SPD, AISIN-WARNER, A6-AF40, ELECTRONIC, GEN2	U.S.A., PR and USVI (MAH),Canada (MBC)
MH8	TRANSMISSION-AUTO 6 SPD, HMD, X23F	U.S.A., PR and USVI (MAH),Canada (MBC)
MHH	TRANSMISSION-AUTO 6 SPD, HMD, GM, BAS+, 6T40, HYBRID, FWD	U.S.A., PR and USVI (MAH),Canada (MBC)
MHK	TRANSMISSION-AUTO 6 SPD, 6T50	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
MR6	TRANSMISSION-MAN 6 SPD, OPEL, 83MM, 3.92 1ST, 0.62 6TH (F40 WR), REDUCE HELIX	U.S.A., PR and USVI (MAH),Canada (MBC)
NJ1	STEERING-POWER, NON-VARIABLE RATIO, ELECTRIC	U.S.A., PR and USVI (MAH),Canada (MBC)
NU6	EMISSION SYSTEM-CALIFORNIA, PZEV	U.S.A., PR and USVI (MAH)
NV7	STEERING-POWER, VARIABLE EFFORT	U.S.A., PR and USVI (MAH),Canada (MBC),Mexico (MCX)
NXC	STEERING-POWER, VARIABLE EFFORT, REDUCED RACK TRAVEL	U.S.A., PR and USVI (MAH),Canada (MBC)
T4A	HEADLAMPS-HALOGEN	U.S.A., PR and USVI (MAH),Canada (MBC)

3820023

1. **Mouse-over:** None at this time.
2. **Hotspot Link to Information:** None at this time.

Electrical Schematic Symbols

Voltage Indicators

Symbol	Description
1988677	Battery Voltage
1988679	Ignition Switch– Off Position
1988682	Ignition Switch– Accessory Position
1988686	Ignition Switch– Run Position
1988691	Ignition Switch– Start Position

General Icons

Symbol	Description
1990537	Master Component List Icon This icon is used on the schematic to link to the Master Electrical Component List.
1990538	Description and Operation Icon This icon is used on the schematic to link to the Description and Operation of that particular system.

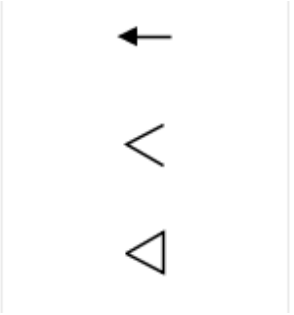
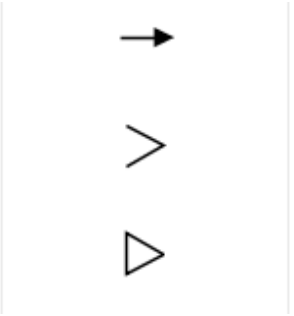
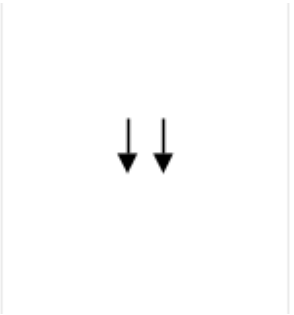
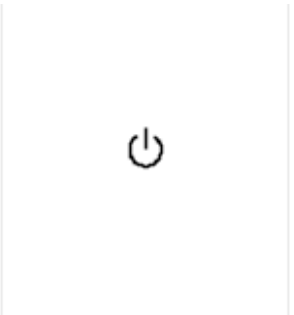
Symbol	Description
1988674	Computer Programming Icon This icon is used on the schematic to link to Control Module References, which identifies which components need programming upon replacement.
1990541	Next Schematic Page Icon This icon is used on the schematic to navigate to the next schematic in the subsystem.
1990542	Previous Schematic Page Icon This icon is used on the schematic to navigate to the previous schematic in the subsystem.
1988667	Supplemental Inflatable Restraint (SIR) or Supplemental Restraint System (SRS) Icon This icon is used to alert the technician that the system contains SIR/SRS components that require certain precautions before servicing.

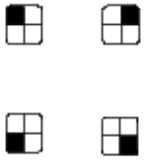
Symbol	Description
1988670	Information Icon This icon is used to alert the technician that there is additional information that will aid in servicing a system.
1988672	Danger Icon This icon is intended to alert the technician that a component within the system contains labeling with the same icon. This icon is used when a source component has potential for 60 volts DC or greater or has potential for 42 volts AC or greater.
1988673	High Voltage Icon This icon is intended to alert the technician that a component within the system contains labeling with the same icon. This icon is used when a component/circuit has potential for 60 volts DC or greater or has potential for 42 volts AC or greater.

Symbol	Description
1990543	Caution Icon This icon is used to advise the technician to use caution when servicing this component. This icon may be used when a component/circuit has a voltage range potential between 30-60 volts DC or 15-42 volts AC.
1988675	Functional Serial Data Communication This icon is used to show the technician that the serial data circuit detail is shown incomplete. It also provides an active link to the Data Communication Schematics were the circuit is shown complete.

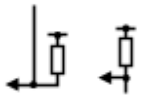
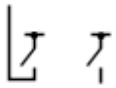
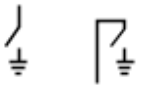
Switch Position Icons

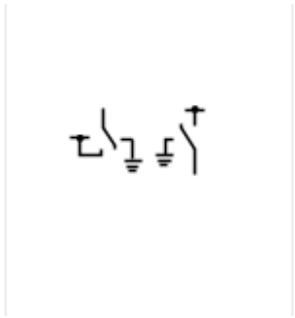
Symbol	Description
1989016	Generic Up Arrows
1990554	Generic Down Arrows

Symbol	Description
 1990555	Generic Left Arrows
 1990556	Generic Right Arrows
 1990557	Generic Express Down Arrows
 1990558	On/Off Icon

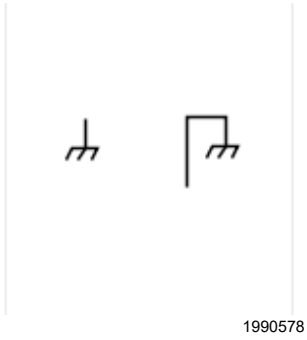
Symbol	Description
1990559	Generic Lock Icon
1990560	Generic Unlock Icon
 1989018	Generic Window Switch Positions– 4 Door
1989020	Generic Window Switch Positions– 2 Door

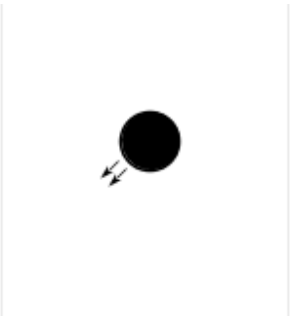
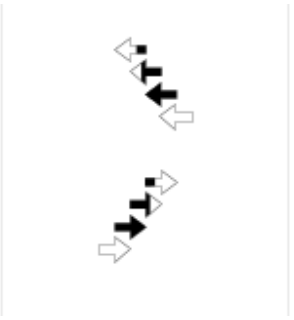
Module Circuit Function Icons

Symbol	Description
1988774	I/O Pull-Down Resistors (−)
 1990567	I/O Pull-Up Resistors (+)
 1988775	I/O High-Side Drive Switch (+)
 1990568	I/O Low-Side Drive Switch (−)

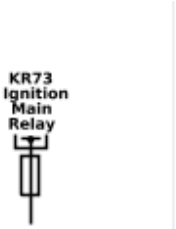
Symbol	Description
1990570	I/O Bidirectional Switch (+/−)
 6535609	I/O Bidirectional Switch (+/−) Neutral State
1990571	Pulse-Width Modulation Symbol
1990573	Battery Voltage

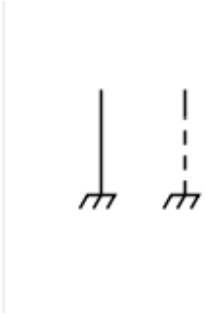
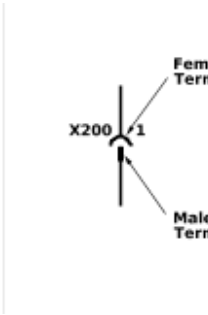
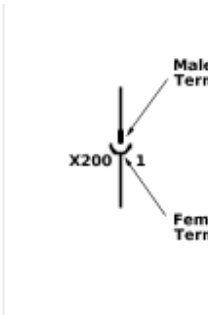
Symbol	Description
1990574	Ignition Voltage
1990576	Voltage Reference
1990577	A/C Voltage
1988986	Low Reference

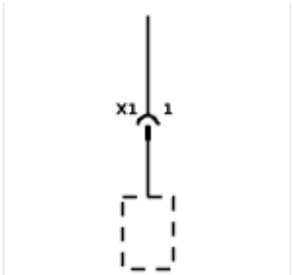
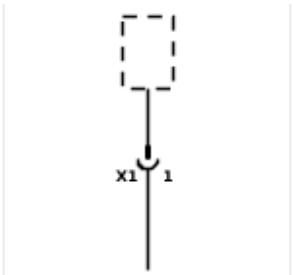
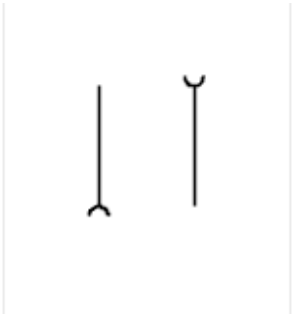
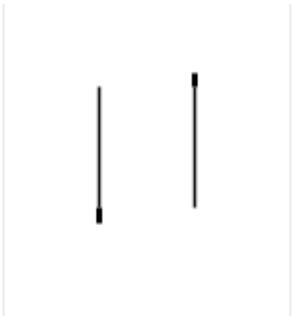
Symbol	Description
 1990578	Ground
1990579	Serial Data
1988973	Antenna Signal– In
1988974	Antenna Signal– Out

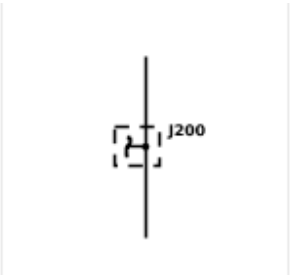
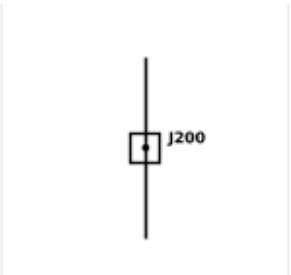
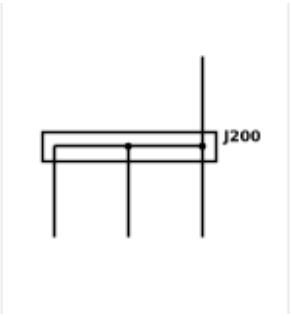
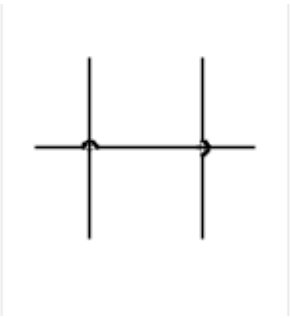
Symbol	Description
2161152	Brake Apply
 5371975	Bulb Out
6659366	Approach Lighting Animation
 6659367	Sequential Turn Signal Animation

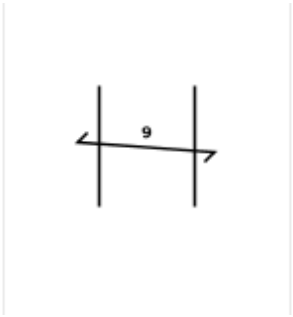
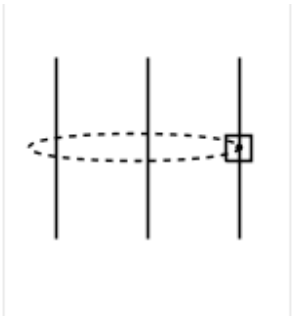
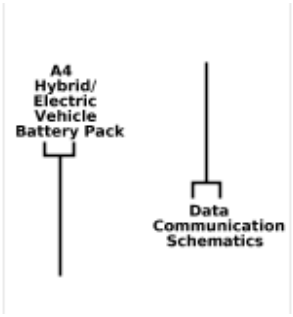
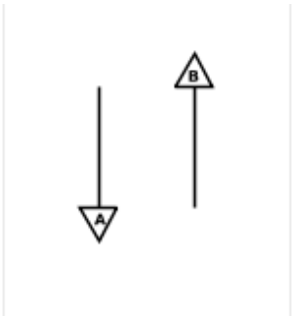
Harness Components

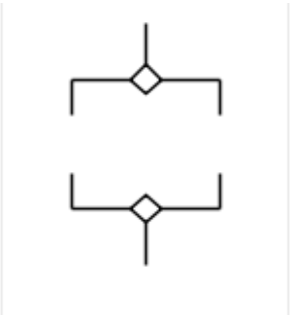
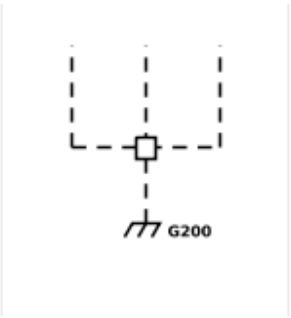
Symbol	Description
1988731	Fuse
 1988733	Fuse Supplied by a Relay
1988740	Circuit Breaker
1988745	Fusible Link

Symbol	Description
 1988987	Ground
1988746	Case Ground
 1988977	Inline Harness Connector
 1990974	Inline Harness Connector

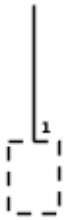
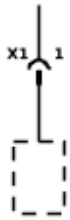
Symbol	Description
 1990975	Pigtail Connection
 1990976	Pigtail Connection
 1990977	Provisional or Diagnostic Connector
 1990978	Blunt Cut Wire

Symbol	Description
 1988980	Incomplete Physical Splice
 1988981	Complete Physical Splice– 2 Wires
 1988982	Complete Physical Splice– 3 or more wires
 1990979	Wire Crosses

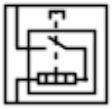
Symbol	Description
 1988988	Twisted Wires
 1988990	Shield
 1990980	Circuit References
 1990981	Circuit Continuation Arrowheads

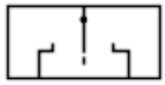
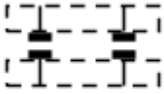
Symbol	Description
 1988983	Option Breakpoint
 1988984	Ground Circuit Connection
1988985	Connector Shorting Clip

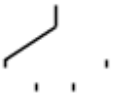
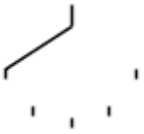
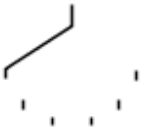
Component Parts

Symbol	Description
1988694	Partial Component When a component is represented in a dashed box, the component or its wiring is not shown in its entirety.
1988698	Entire Component When a component is represented in a solid box the component or its wiring is shown in its entirety.
 1988712	Connector Directly Attached to Component
 1988715	Pigtail Connector

Switches and Relays

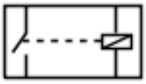
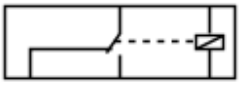
Symbol	Description
1991015	Accessory Power Outlet
 1991016	Cigar Lighter
1988991	Switch– 2 Position Normally Open
1988992	Switch– 2 Position Normally Closed

Symbol	Description
 1988993	Switch– Rocker
1991017	Switch– Contact Plate (1 Wire)
 1988994	Switch– Contact Plate (2 Wire)
1991018	Switch– 3 Position

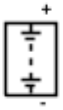
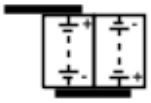
Symbol	Description
 1988995	Switch– 4 Position
 1991019	Switch– 5 Position
 1991021	Switch– 6 Position
1988997	Switch Actuator– Push (Momentary)

Symbol	Description
1988998	Switch Actuator– Push (Latching)
1988999	Switch Actuator– Pull (Momentary)
1989000	Switch Actuator– Pull (Latching)
1989001	Switch Actuator– Rotate (Momentary)

Symbol	Description
1989002	Switch Actuator– Rotate (Latching)
1989003	Switch Actuator– Slide (Momentary)
1989004	Switch Actuator– Slide (Latching)
1989007	Switch Actuator– Pressure (Momentary)

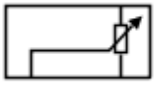
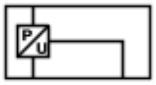
Symbol	Description
1989010	Switch Actuator– Temperature (Momentary)
1989013	Switch Actuator– Volume (Latching)
 1988975	4-Pin Single Pole/Throw Relay– Normally Open
 1990539	5-Pin Relay– Normally Closed

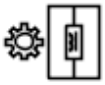
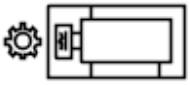
Devices and Sensors

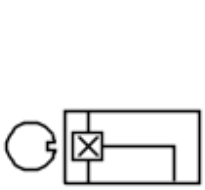
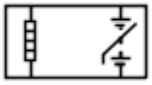
Symbol	Description
 1988751	Battery
 1988753	Battery Assembly– Hybrid
1988717	Single Filament Light Bulb
1988719	Double Filament Light Bulb

Symbol	Description
1988722	Light Emitting Diode (LED)
1988725	Photo Sensor
1990988	Gauge
1988776	Diode

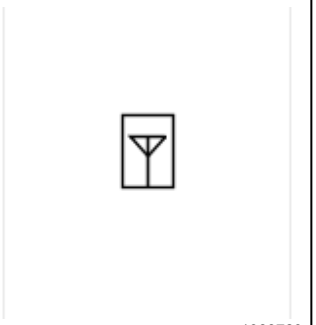
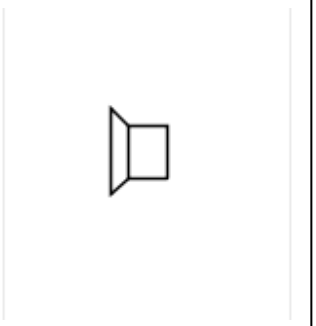
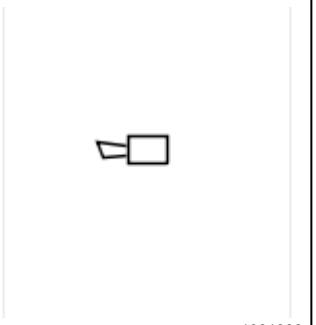
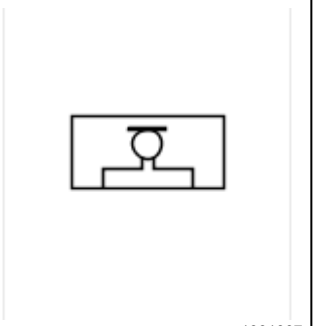
Symbol	Description
1988748	Capacitor
1988755	Resistor
1988759	Variable Resistor
1990991	Variable Resistor– NTC

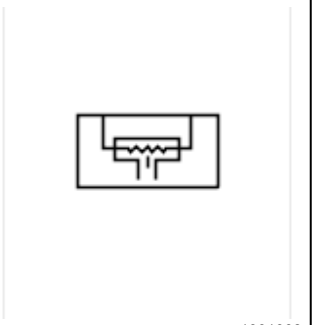
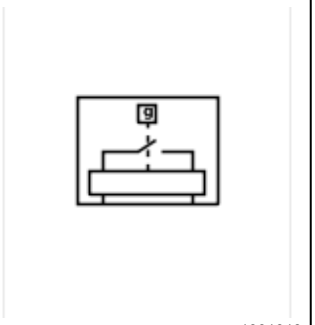
Symbol	Description
1990992	Breakable Wire
1988778	Heating Element
 1988771	Position Sensor
 1988773	Pressure Sensor

Symbol	Description
1990993	Knock Sensor
 1990994	Inductive Type Sensor– 2-Wire
 1990996	Inductive Type Sensor– 3-Wire
1990998	Hall Effect Sensor– 2-Wire

Symbol	Description
 1990999	Hall Effect Sensor– 3-Wire
1991000	Oxygen Sensor– 2-Wire
 1991001	Heated Oxygen Sensor– 4-Wire
1988970	Solenoid– Actuator

Symbol	Description
1988971	Solenoid– Valve
1988972	Clutch
1988779	Motor
1991003	Motor with PTC

Symbol	Description
 1988729	Antenna
 1991005	Speaker
 1991006	Horn
 1991007	Microphone

Symbol	Description
 1991008	Airbag
1991009	SIR Coil
 1991010	SIR Impact Sensor

Schematics RPO Code List

Schematics RPO Code List

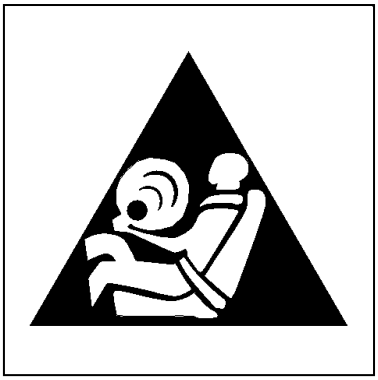
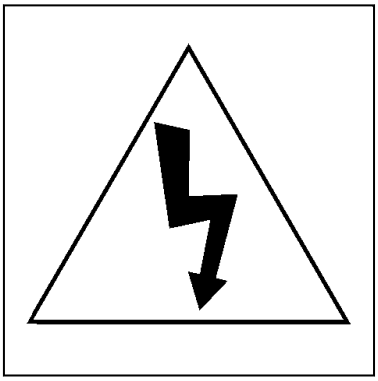
RPO	Option Name
9L7	EQUIPMENT-ACSRY WRG JUNC BLK
A31	WINDOW-POWER OPERATED, ALL DOORS (DO NOT USE ON NEW/MAJOR PROGRAMS)

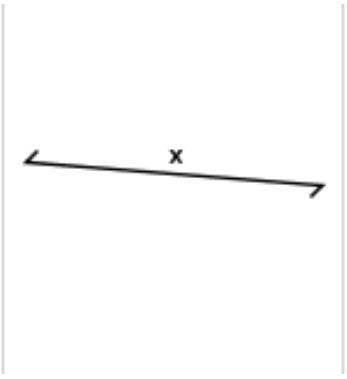
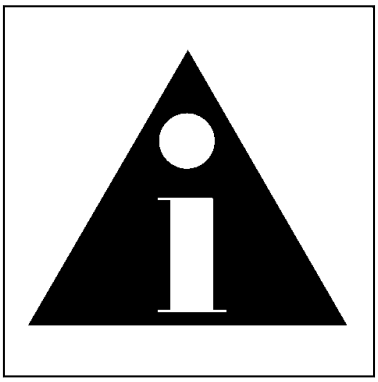
RPO	Option Name
AG1	ADJUSTER FRT ST-POWER, MULTI-DIRECTIONAL, DRIVER (DO NOT USE ON NEW PROGRAMS AFTER MY18)
AG2	ADJUSTER PASS ST-POWER, MULTI-DIRECTIONAL (DO NOT USE ON NEW PROGRAMS AFTER MY18)
AK5	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER and PASS FRT
ASF	RESTRAINT-ROOF SIDE (LH and RH), SEAT SIDE (FRONT 1ST ROW), INFLATABLE (DO NOT USE. USE RES FAMILY.)
ATG	LOCK CONTROL, ENTRY-REMOTE ENTRY, STANDARD RANGE
AU3	LOCK CONTROL-SIDE DR, ELEC
BTV	REMOTE START-VEHICLE
C36	HEATER-AUXILIARY
C49	DEFOGGER-RR WINDOW, ELECTRIC
C69	HVAC SYSTEM RR-AIR CONDITIONER
C99	SWITCH-INFL RST I/P MDL MAN SUPPRESSION (DNU NEXT NEW MAJOR USE AZM OR AZT)
CARGO	CARGO CHASSIS
CUTAWAY	CUTAWAY CHASSIS
DE5	MIRROR O/S-LH and RH, REMOTE CONTROL, ELECTRIC, HEATED, FOLDING, COLOR.
DH6	MIRROR I/S FRT VAN-LH and RH, SUNSHADE, ILLUM (DO NOT USE NEXT NEW MAJOR)
E24	DOOR SIDE-REAR, HINGED
ENC	HVAC PROVISIONS-AUXILLIARY HEATER PLUMBING and WIRING
K34	CRUISE CONTROL-AUTOMATIC, ELECTRONIC
KI4	RECEPTACLE I/P-ELECTRICAL, 110 VOLT
L8T	ENGINE-GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
LV1	ENGINE-GAS, 6 CYL, 4.3L, GEN 5, SIDI, V6, VVT, OHV, ALUM
NE7	FUEL TANK-216L, 57 GAL
PASSENGER	PASSENGER CHASSIS
REARHVAC-CONTROLS	REAR HVAC CONTROLS
TP3	BATTERY-770 CCA and 770 CCA (DUAL)770 CCA and 770 CCA (DUAL)
TR9	LAMP GROUP-
U80	DISPLAY-COMPASS
UD7	PARK ASSIST-REAR
UE1	COMMUNICATION SYSTEM-VEHICLE, ONSTAR
UEU	SENSOR INDICATOR-FORWARD COLLISION ALERT
UFA	DISPLAY-OUTSIDE TEMPERATURE
UFL	LANE ACTIVE SAFETY-DEPARTURE WARNING
UFT	SIDE ACTIVE SAFETY-OBSTACLE DETECTION
UJ1	INDICATOR-SYSTEM, BRAKE WARNING
UJM	TIRE PRESS INDICATOR-MANUAL LEARN
UVC	VISION-REAR VIEW, MONO, ANALOG
UY7	WIRING HARNESS-TRUCK TRAILER, HD
V4D	CALIBRATION-SEPARATED STOP/TURN SIGNAL CIRCUITS
W1Y	CONTROL-STEERING WHEEL, RADIO, REDUNDANT CONTROLS
YA2	DOOR SIDE-REAR, SLIDING DOOR, MANUAL

RPO	Option Name
YF1	SALES PACKAGE-CUTAWAY UPFITTER
YF2	SALES PACKAGE-AMBULANCE UPFITTER

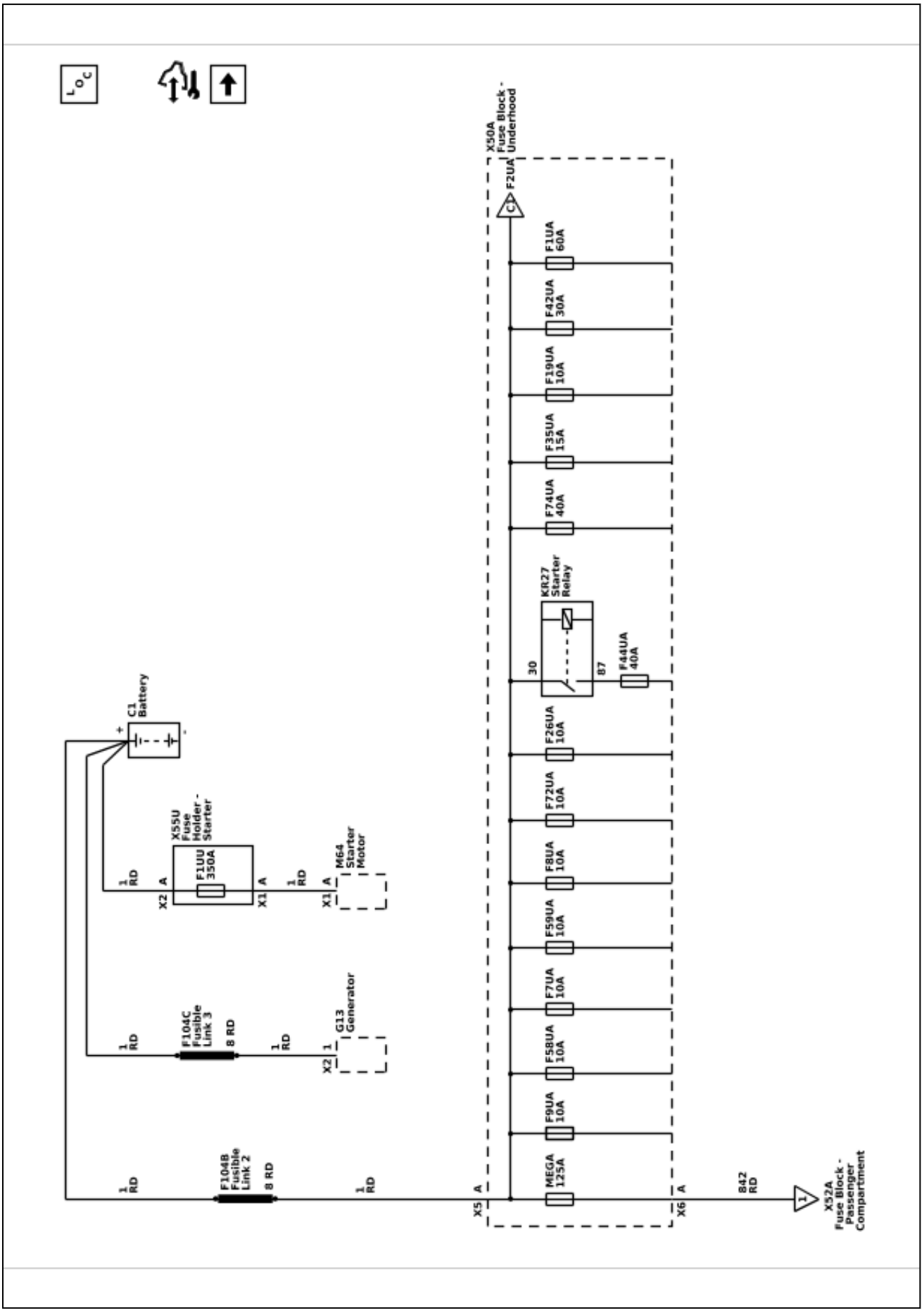
Master Electrical Schematic Icons

Master Electrical Schematic Icons

Icon	Icon Definition
 19386	***Warning: When performing service on or near the SIR components or the SIR wiring, the SIR system must be disabled. Refer to SIR Disabling and Enabling . Failure to observe the correct procedure could cause deployment of the SIR components, personal injury, or unnecessary SIR system repairs.***
 296943	***Warning: To help avoid personal injury, always treat the accessory power receptacle, accessory DC/AC power inverter module, AC circuit wires, and connectors as if AC high-voltage is present.***

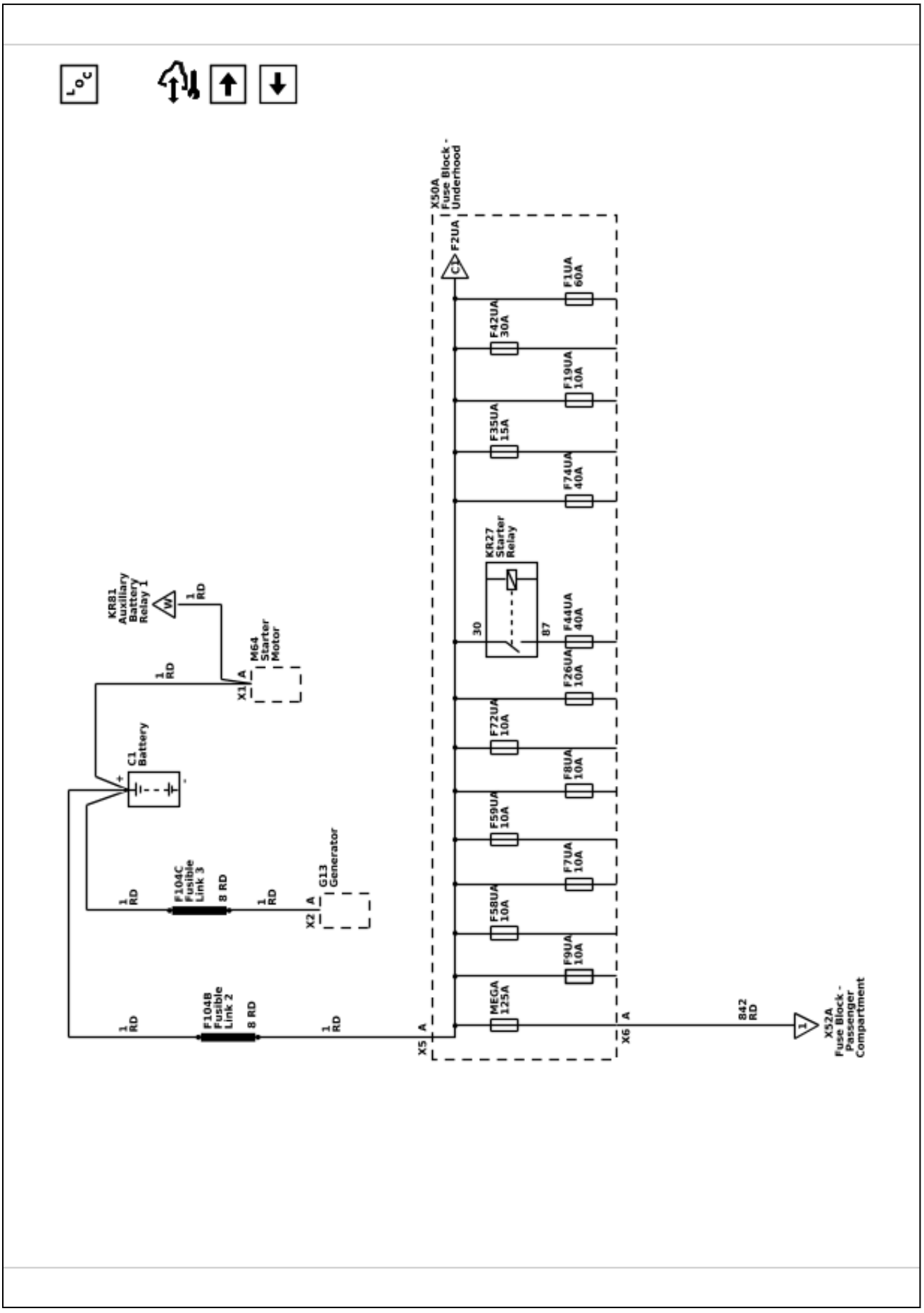
Icon	Icon Definition
 902886	**Note:** Twisted wires provide an effective shield that helps protect sensitive electronic components from electrical interference.In order to prevent electrical interference from degrading the performance of the connected components, you must maintain the proper specification when making any repairs to the twisted wires shown : • The wires must be twisted a minimum of 9 turns per 31 cm (12 in) as measured anywhere along the length of the wires. • The outside diameter of the twisted wires must not exceed 6.0 mm (0.25 in).
 1822496	**Note:** Pinout indexing on ground splice pack connectors JX347 and JX348 may vary.

Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block - One Battery - 1 of 3)

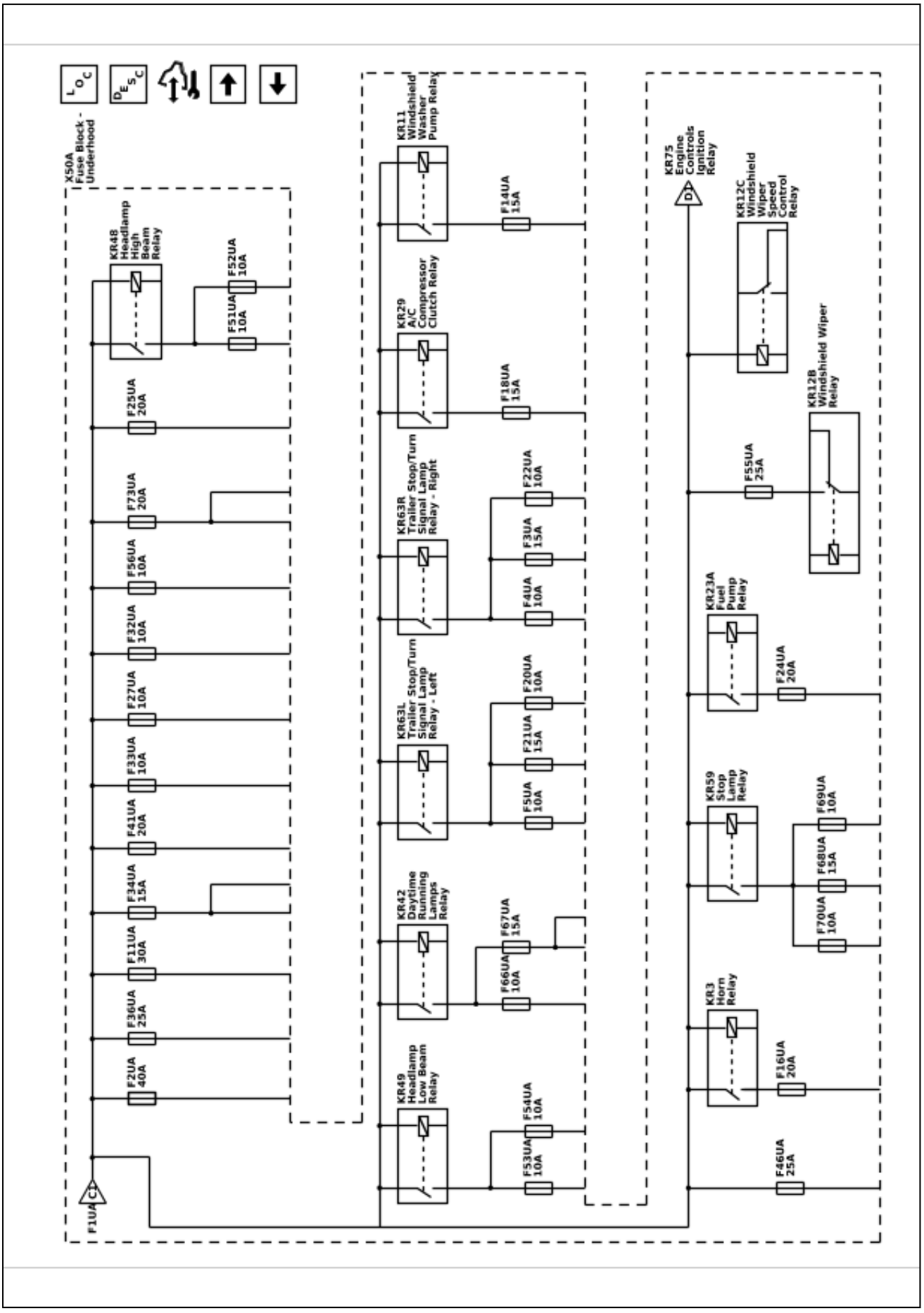


6600200

Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block - Two Batteries - 1 of 3)

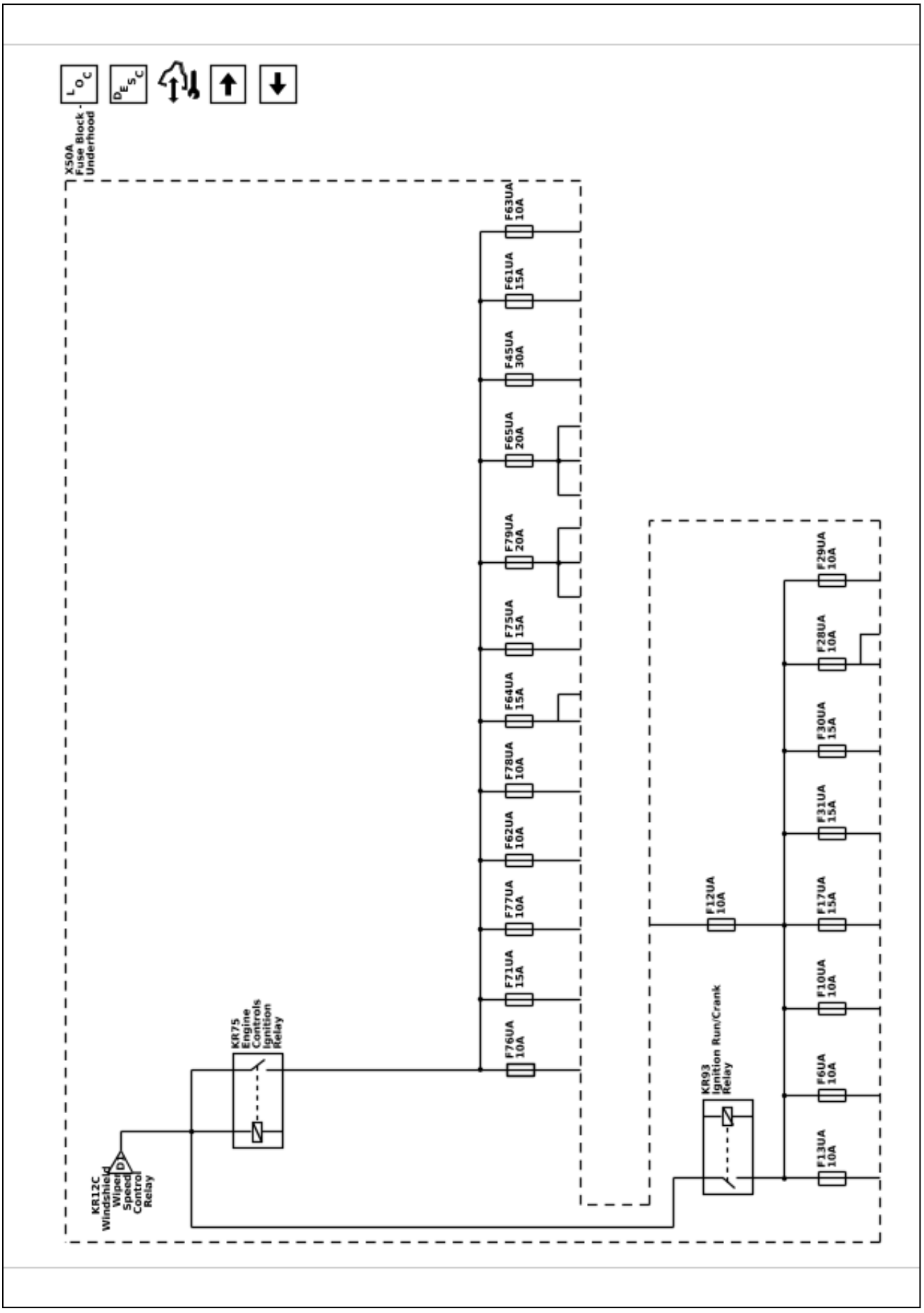


Power Distribution Schematics (B+ Bus - Underhood Fuse Block - 2 of 3)

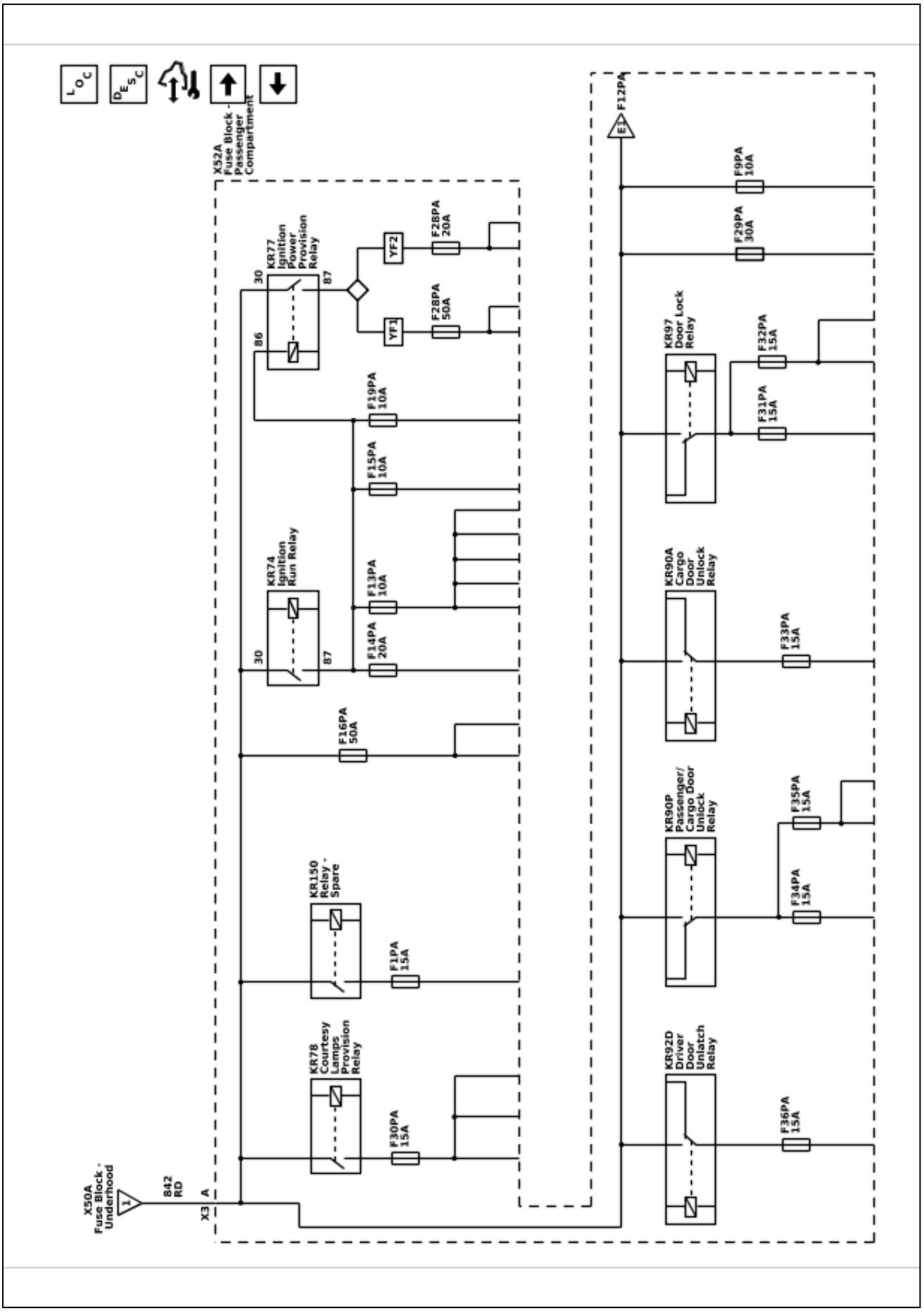


6600202

Power Distribution Schematics (B+ Bus - Underhood Fuse Block - 3 of 3)

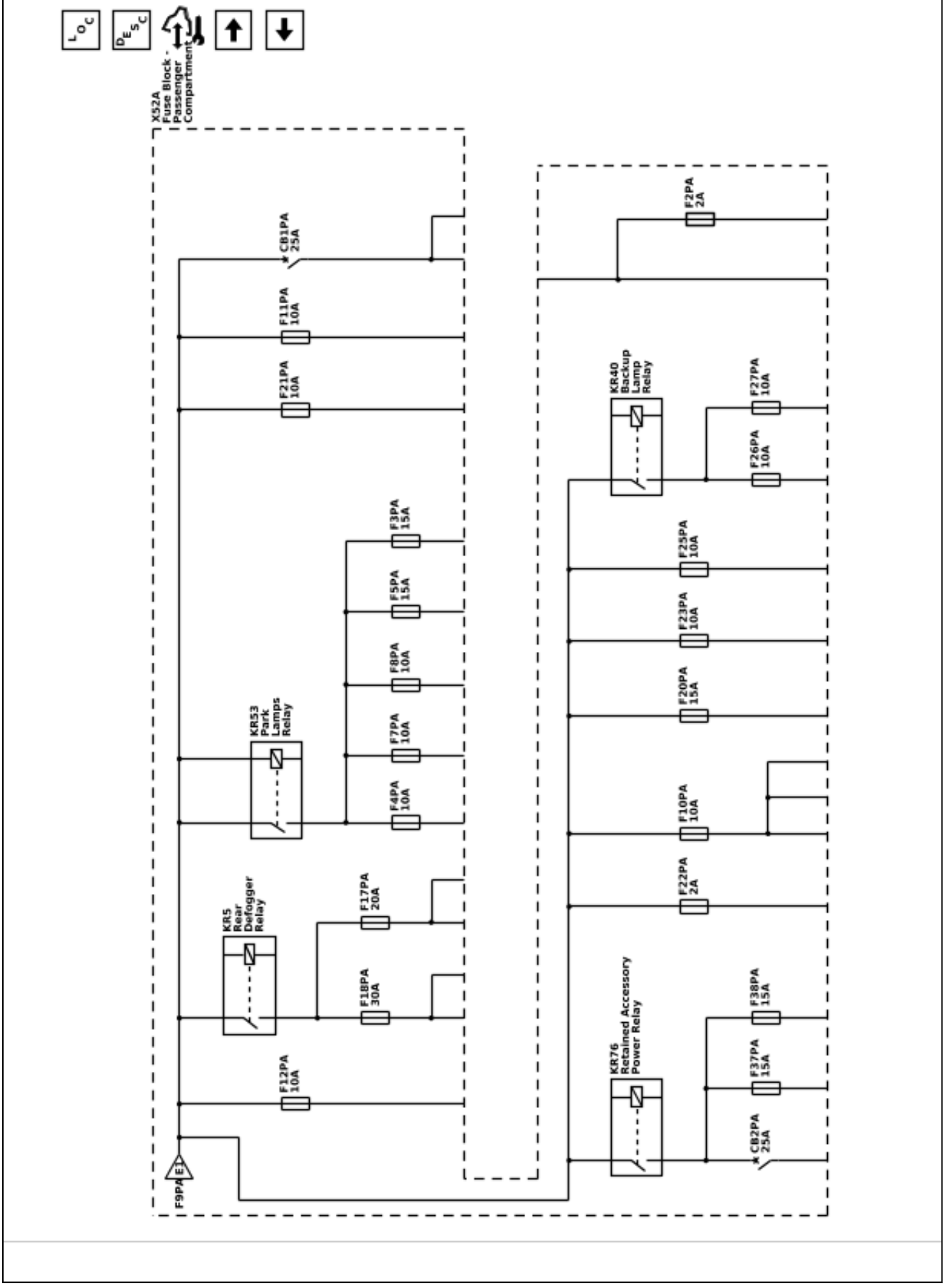


Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block - 1 of 2)

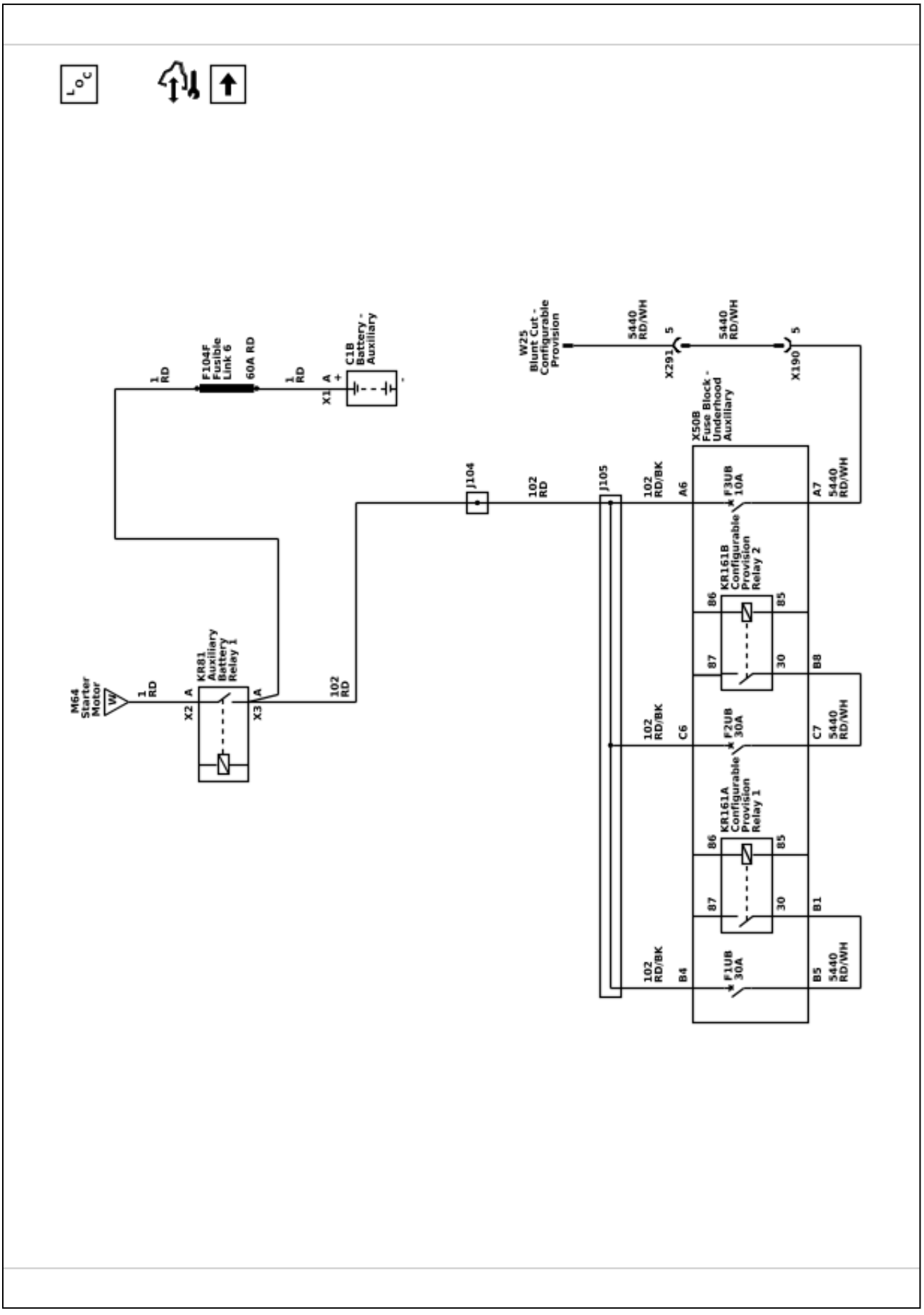


6600204

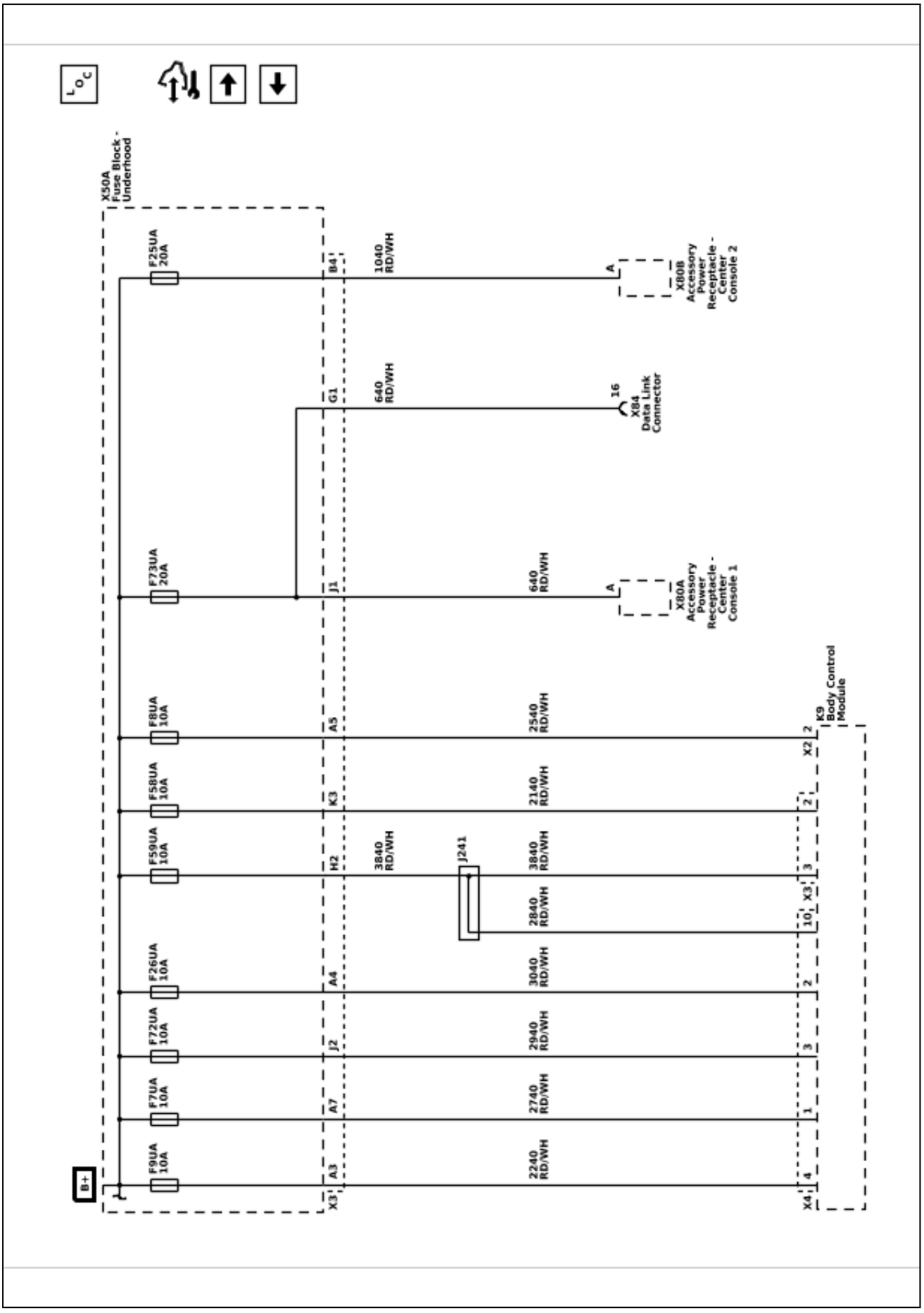
Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block - 2 of 2)



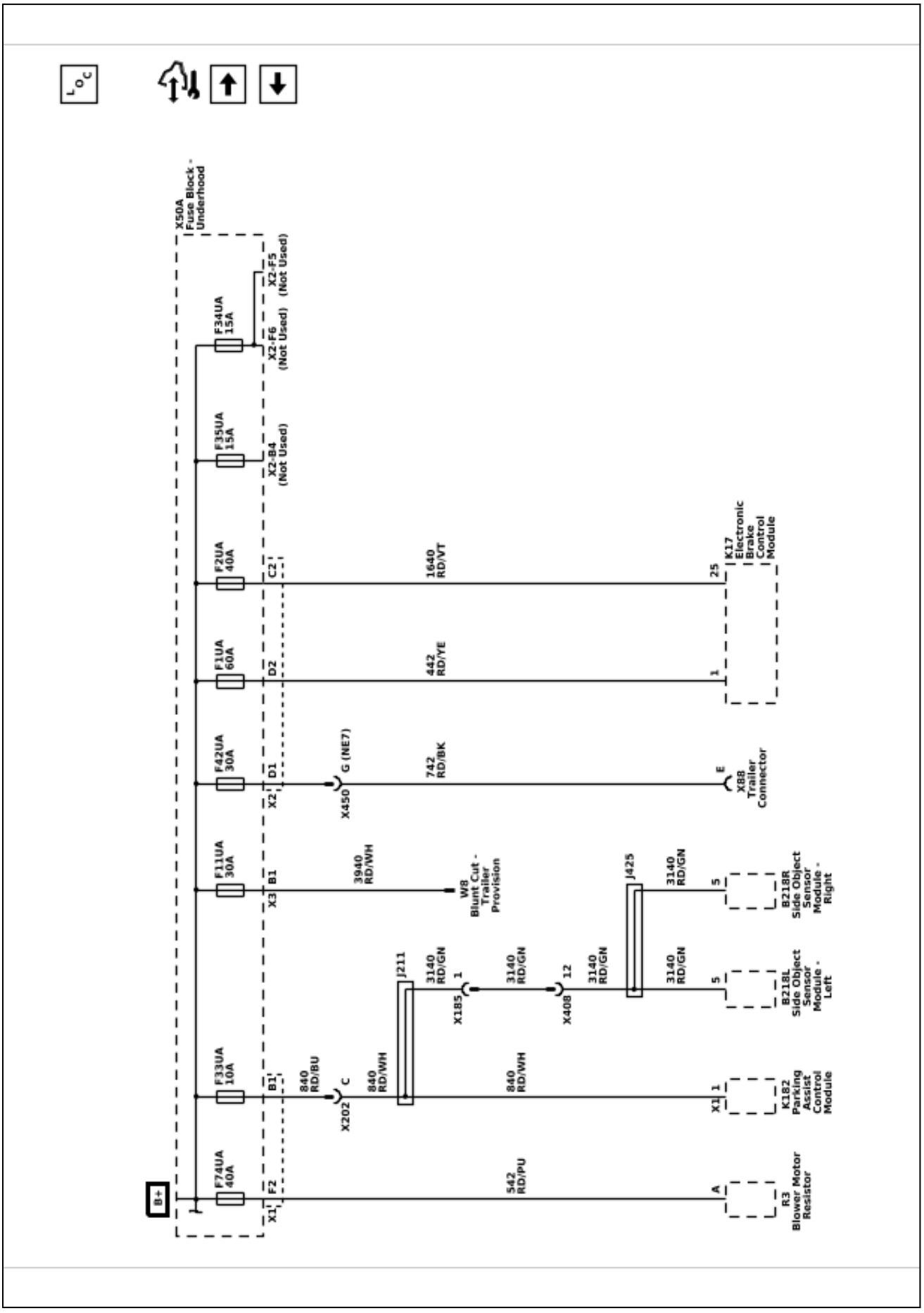
Power Distribution Schematics (Fuse Block - Underhood Auxiliary (9L7))



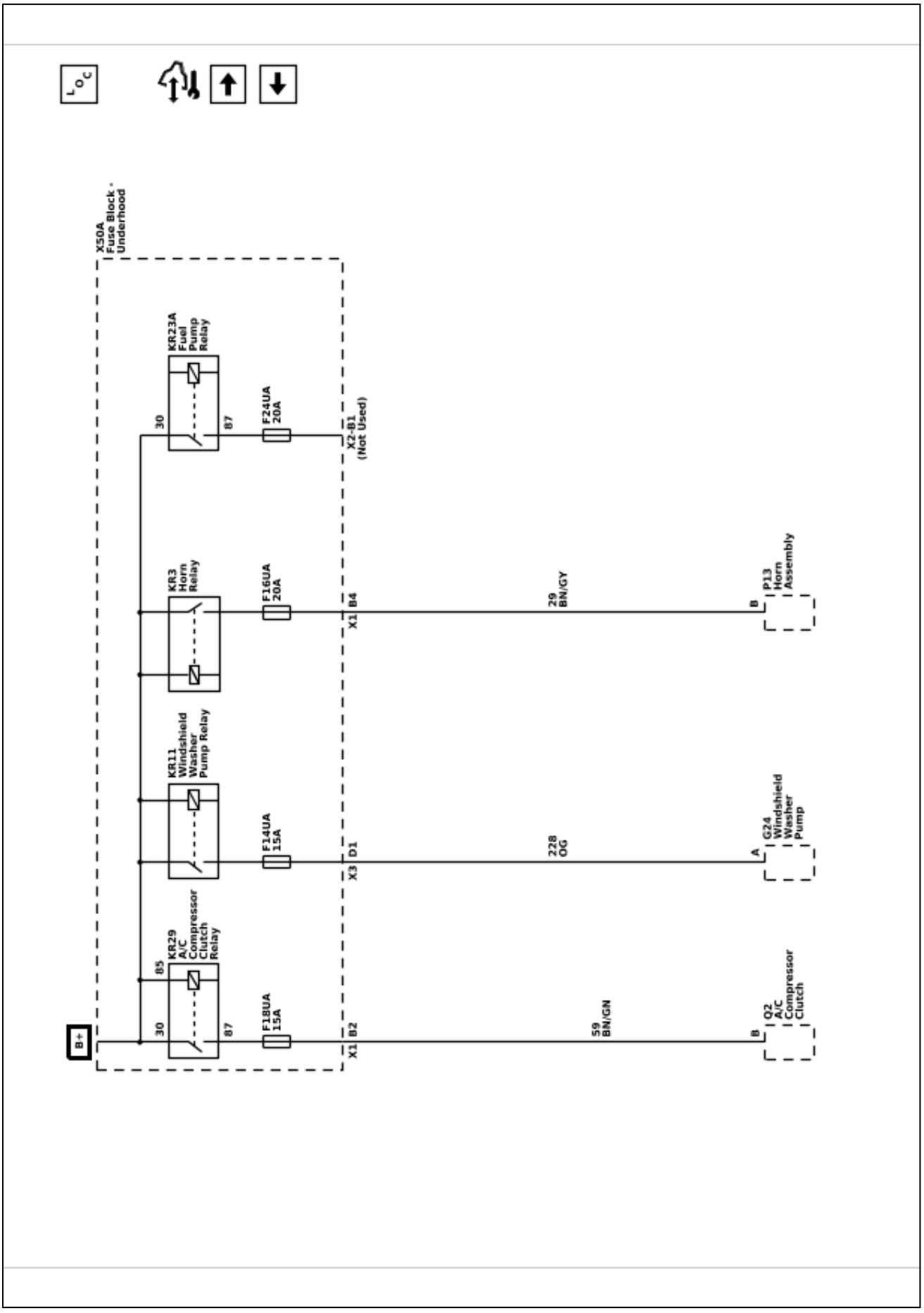
Power Distribution Schematics (Fuses F7UA, F8UA, F9UA, F25UA, F26A, F58UA, F59UA, F72UA, and F73UA)



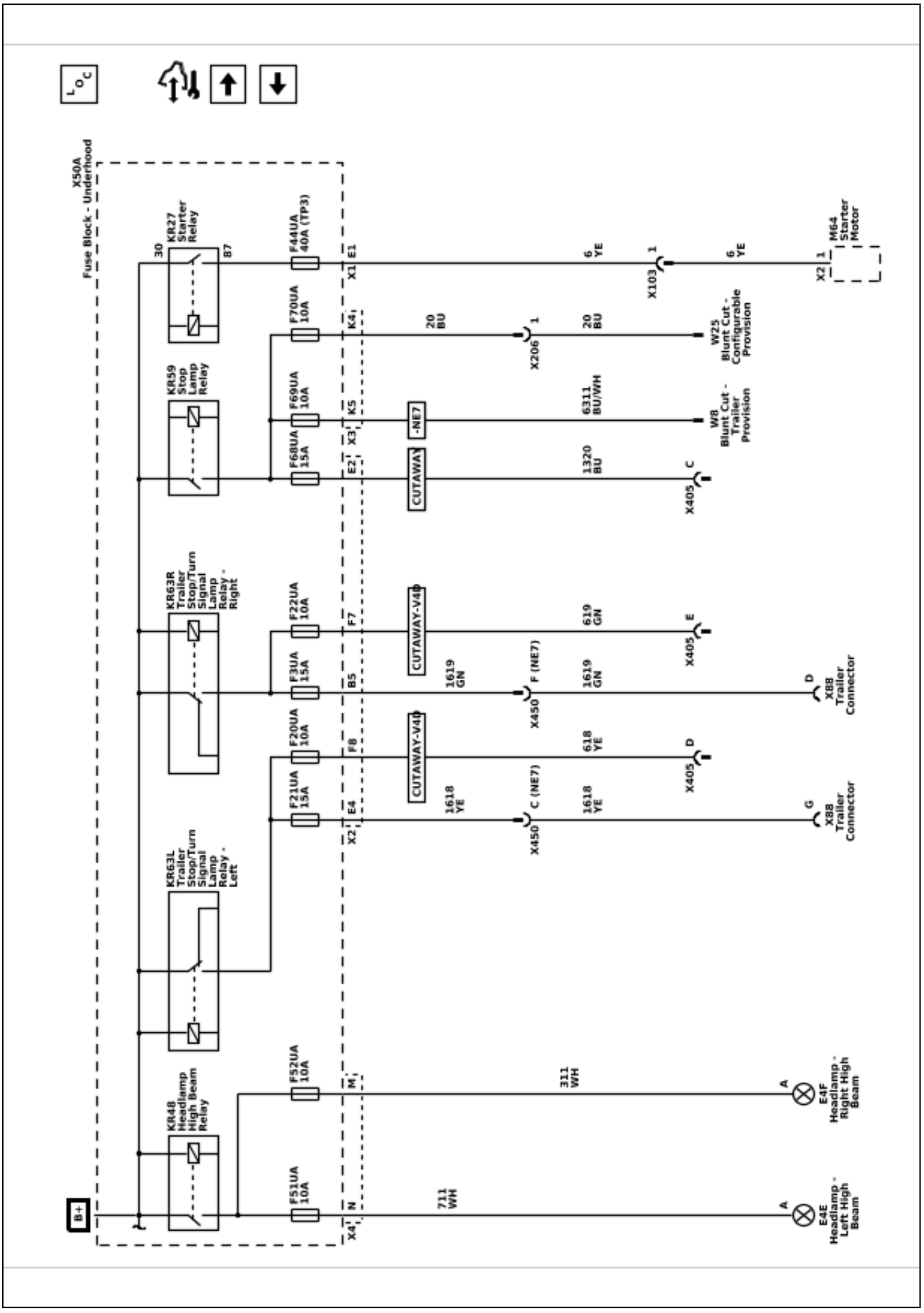
Power Distribution Schematics (Fuses F1UA, F2UA, F11UA, F33UA, F34UA, F35UA, F42UA, and F74UA)



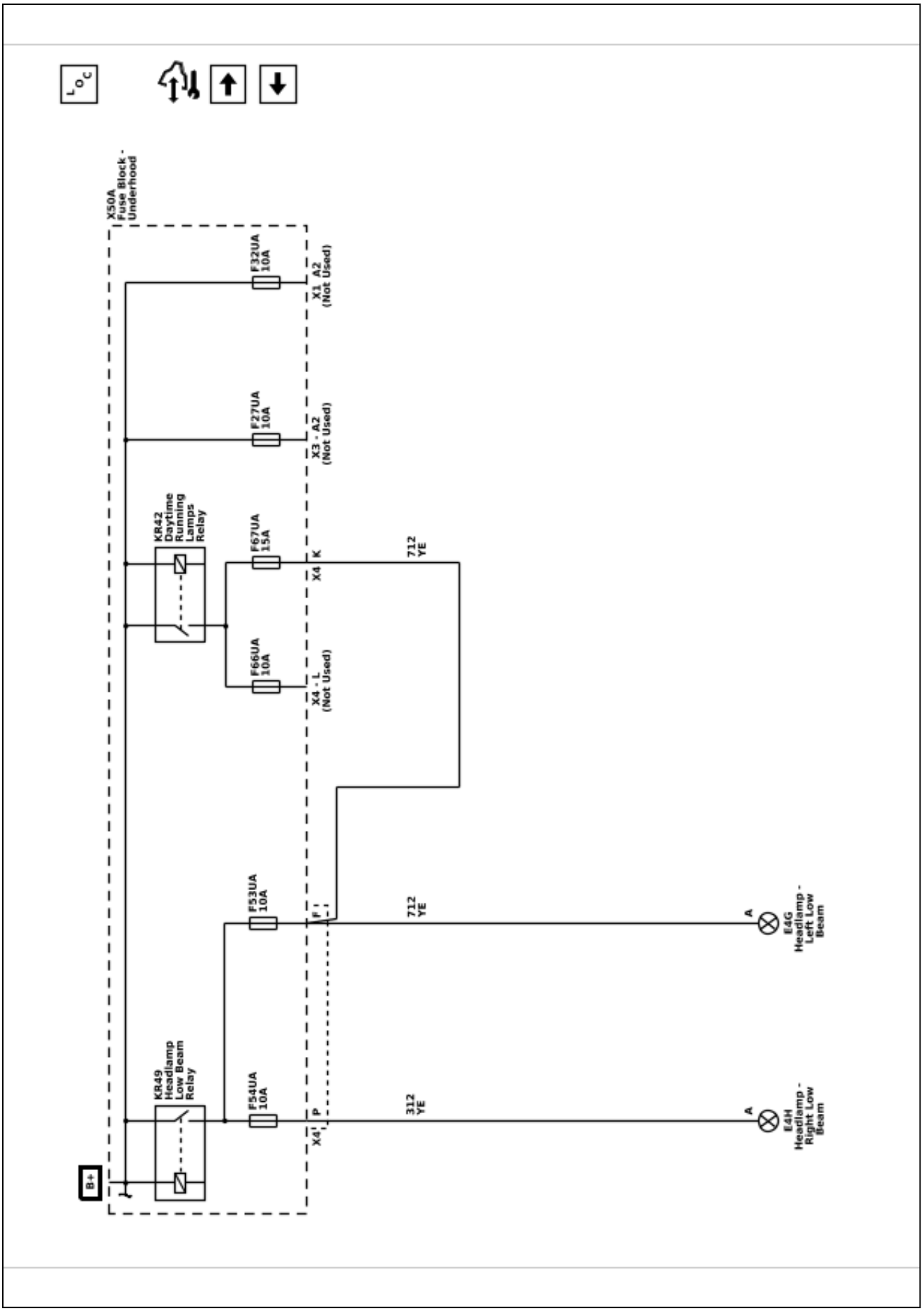
Power Distribution Schematics (Fuses F14UA, F16UA, F18UA, and F24UA)



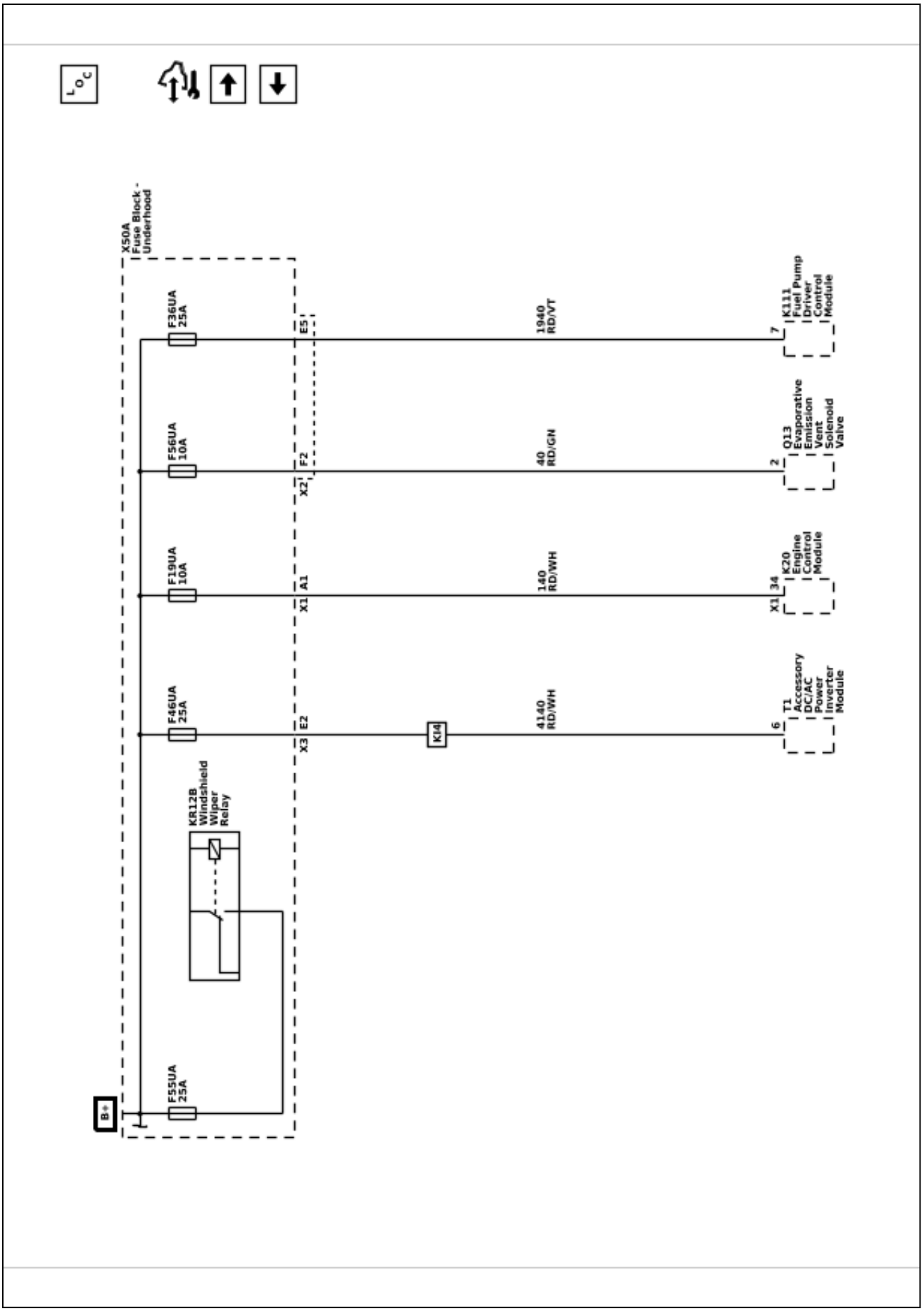
Power Distribution Schematics (Fuses F3UA, F20UA, F21UA, F22UA, F44UA, F51UA, F52UA, F68UA, F69UA, and F70UA)



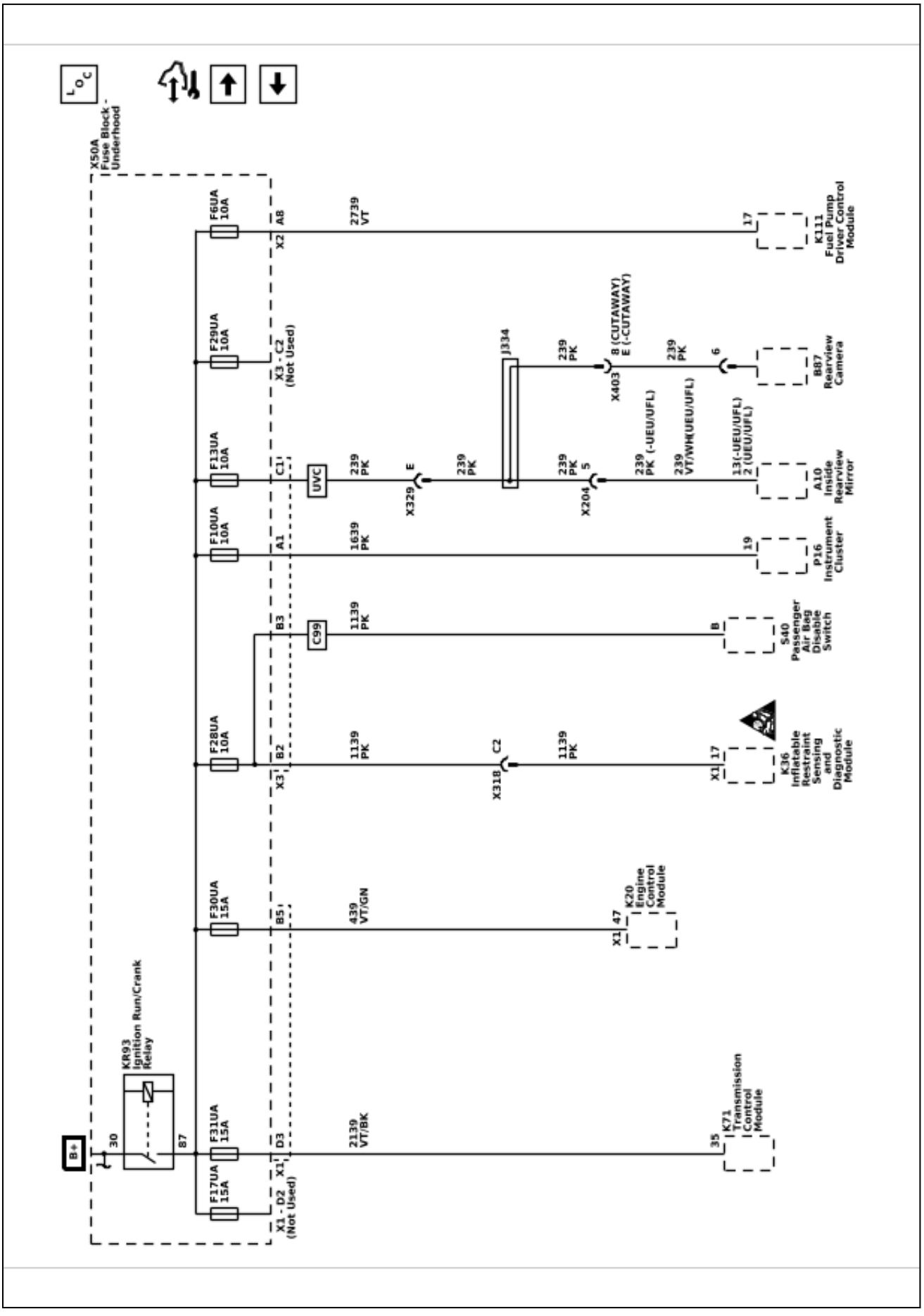
Power Distribution Schematics (Fuses F27UA, F32UA, F53UA, F54UA, F66UA, and F67UA)



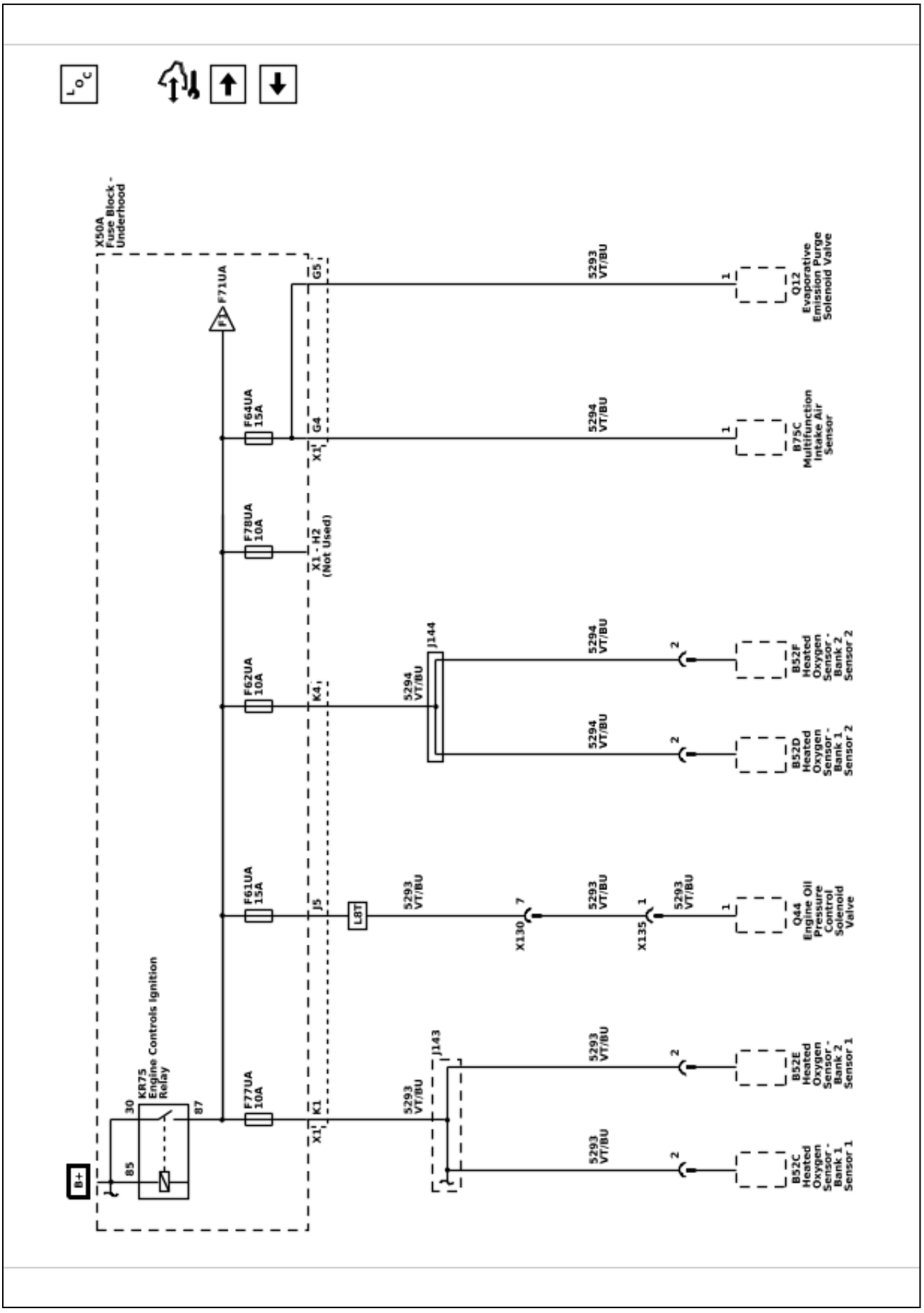
Power Distribution Schematics (Fuses F19UA, F36UA, F46UA, F55UA, and F56UA)



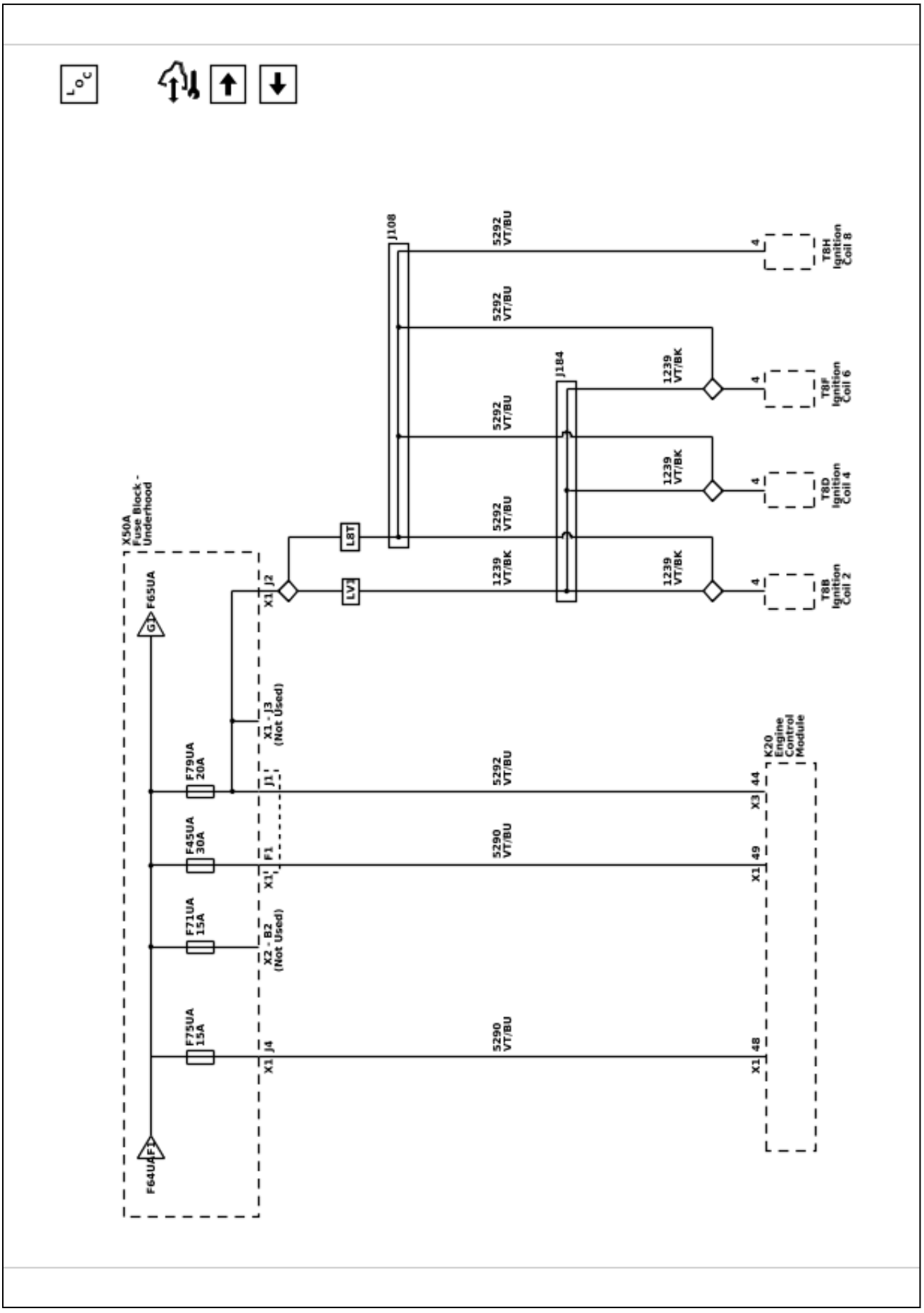
Power Distribution Schematics (Fuses F6UA, F10UA, F13UA, F17UA, F28UA, F29UA, F30UA, and F31UA)



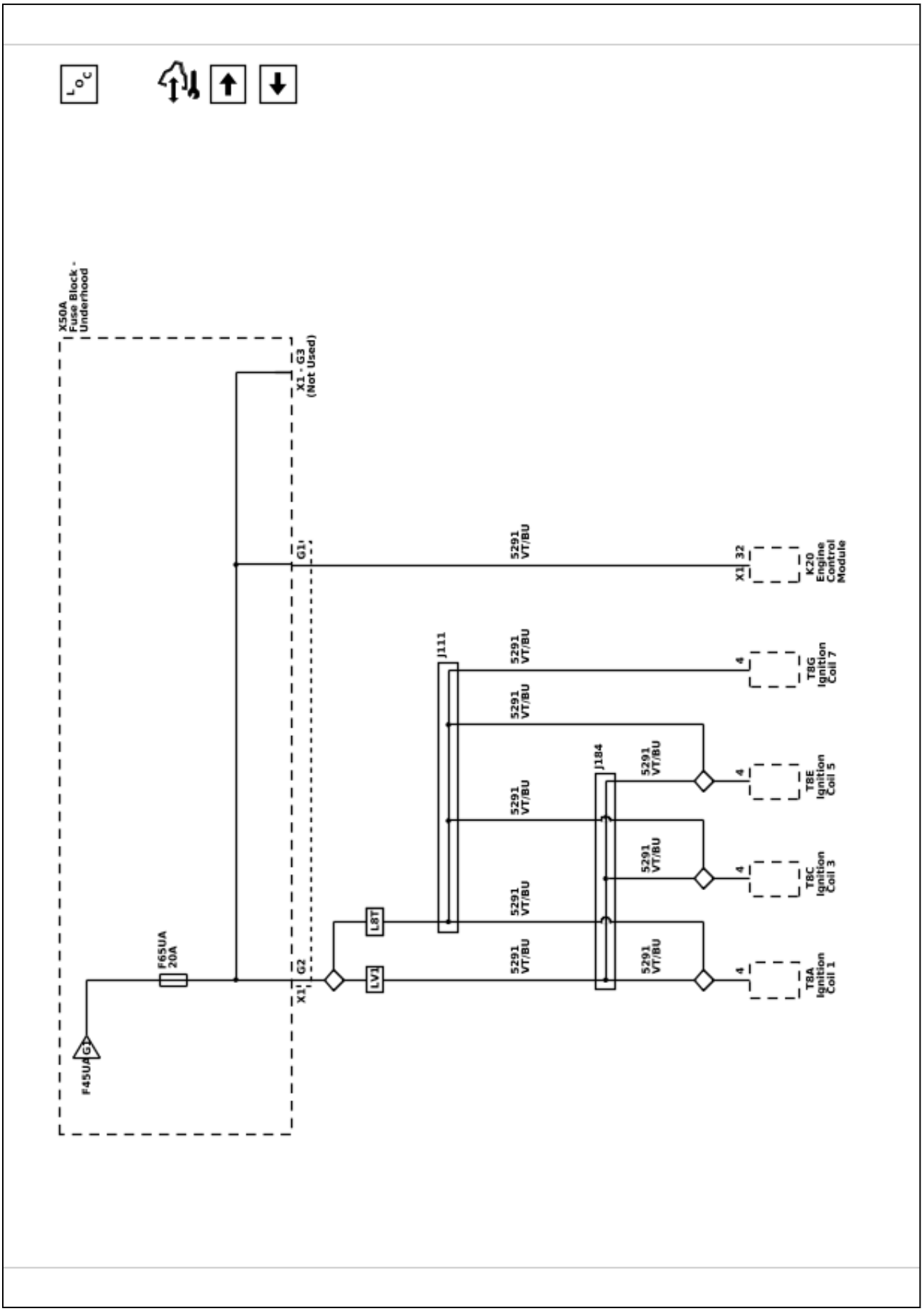
Power Distribution Schematics (Fuses F61UA, F62UA, F64UA, F77UA, and F78UA)



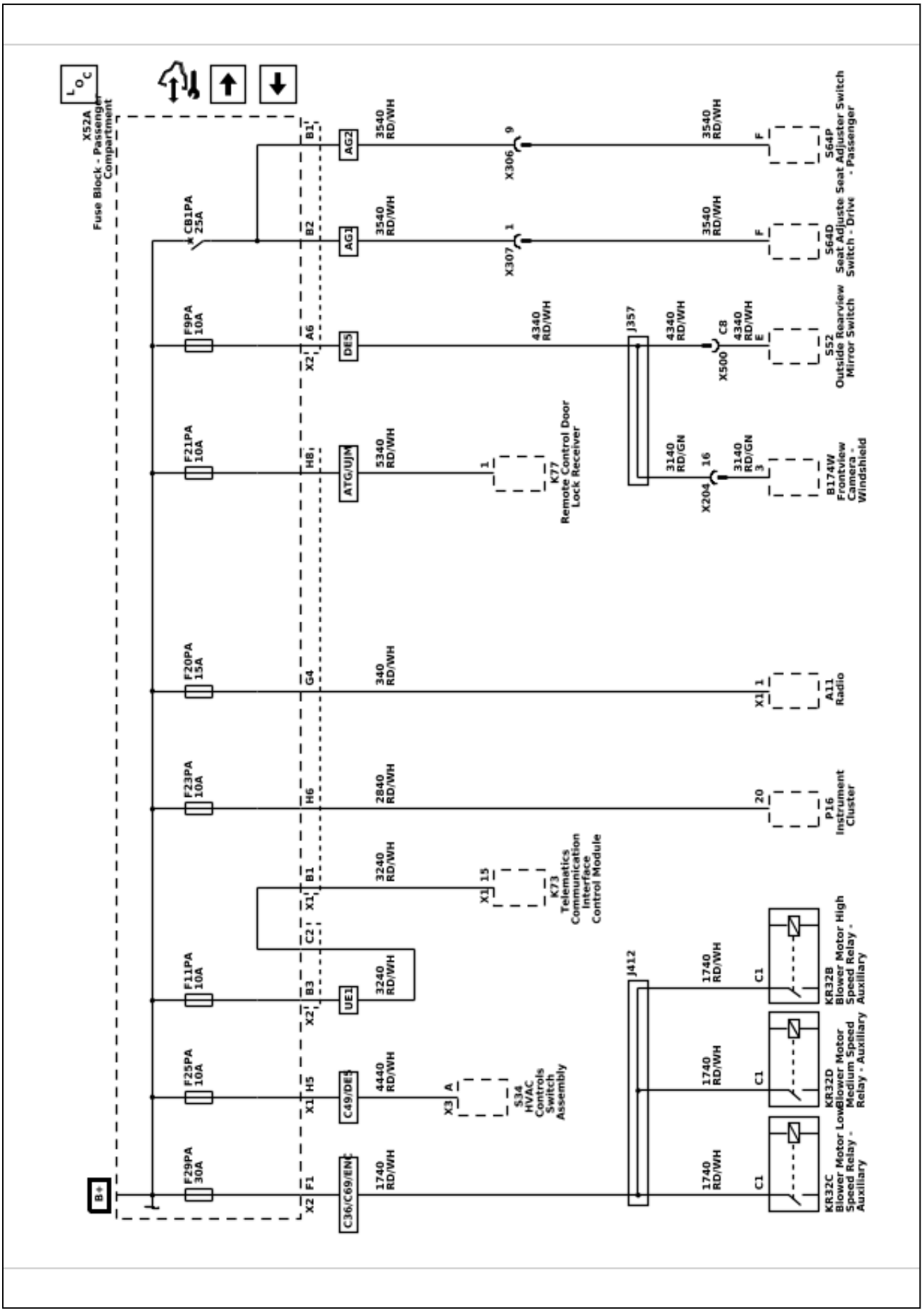
Power Distribution Schematics (Fuses F45UA, F71UA, F75UA, and F79UA)



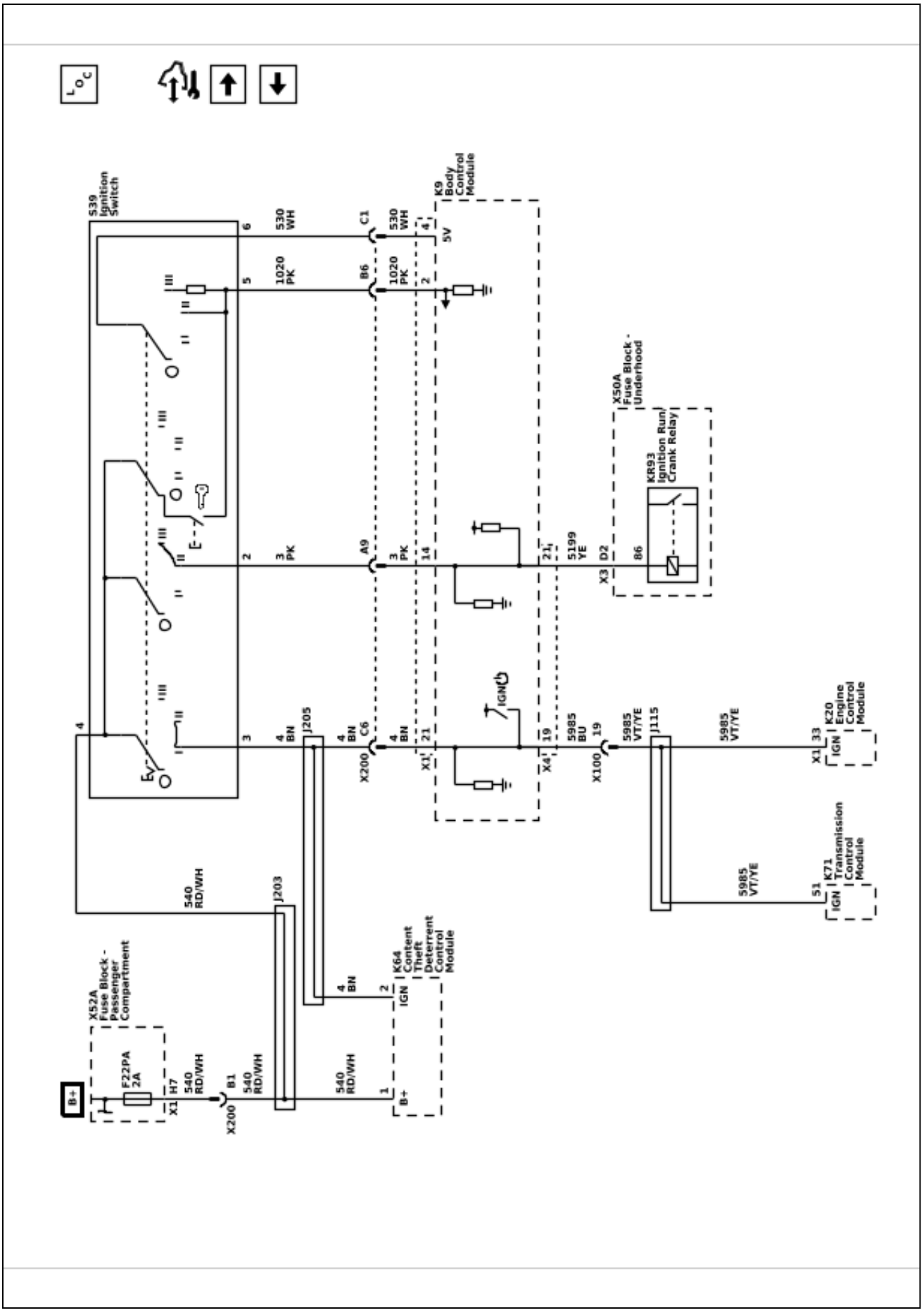
Power Distribution Schematics (Fuse F65UA)



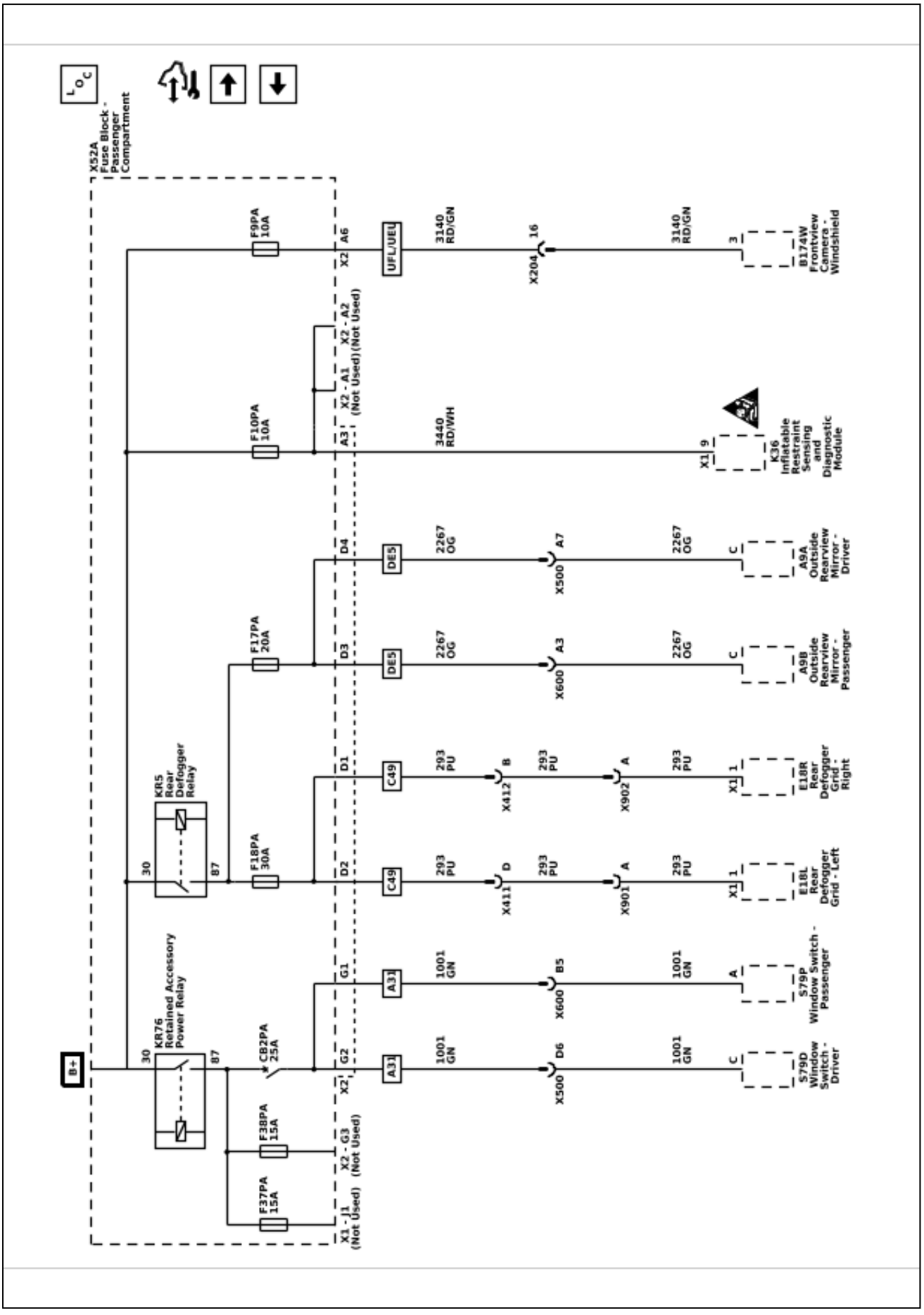
Power Distribution Schematics (Fuses F9PA, F11PA, F20PA, F21PA, F23PA, F25PA, F29PA, and Circuit Breaker CB1PA)



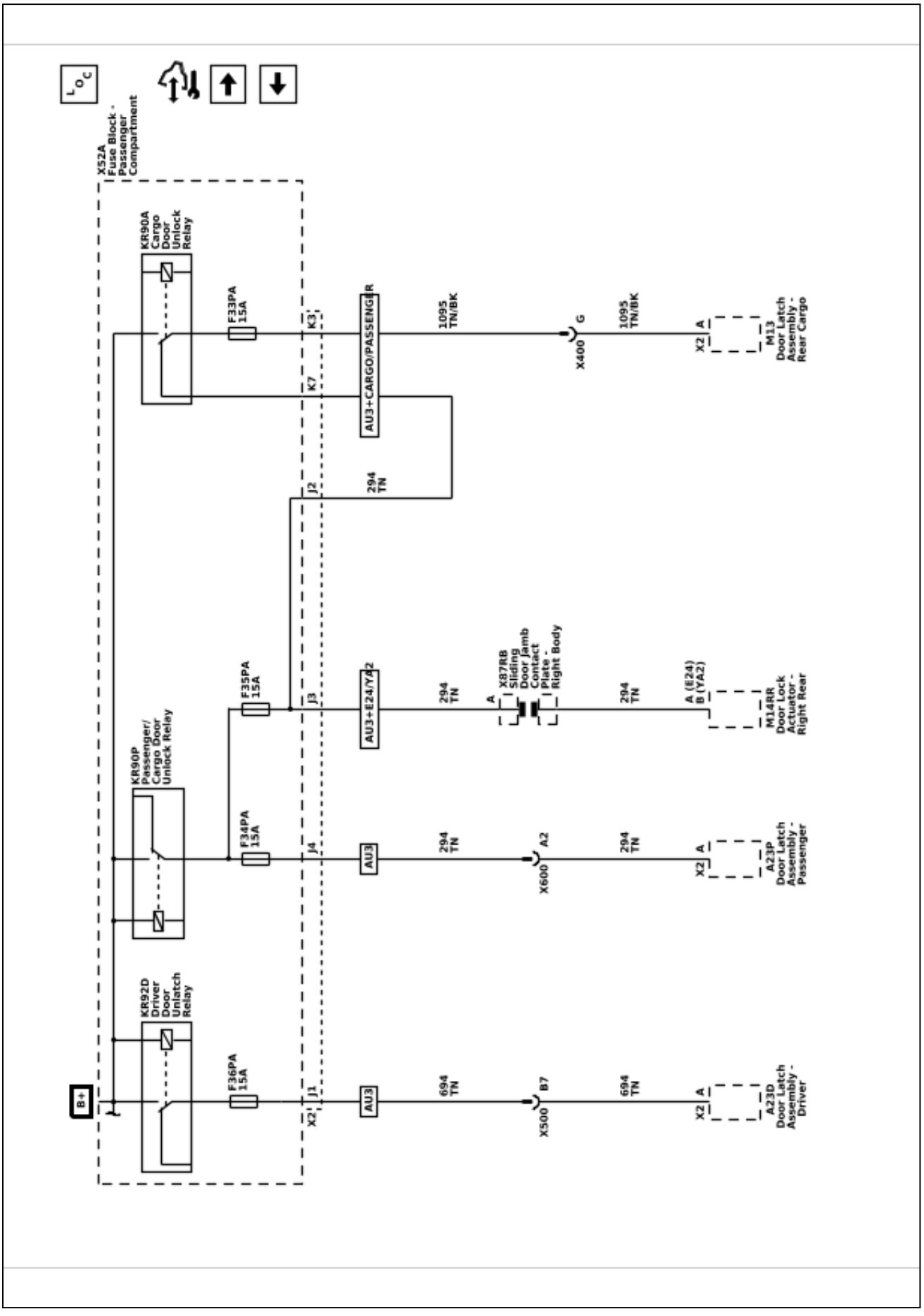
Power Distribution Schematics (Ignition Switch and Fuse F22PA)



Power Distribution Schematics (Fuses F9PA, F10PA, F17PA, F18PA, F37PA, F38PA, and Circuit Breaker CB2PA)

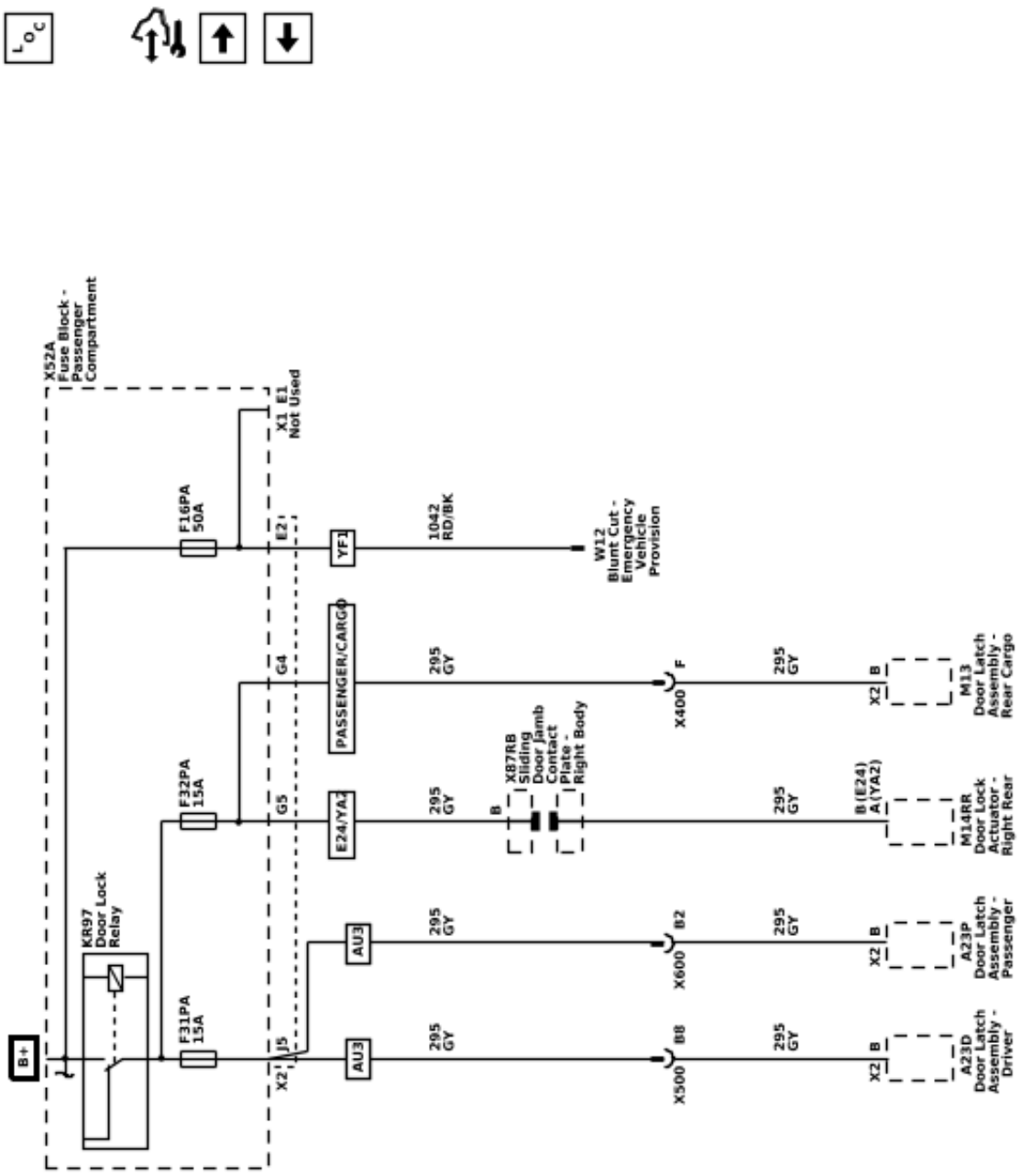


Power Distribution Schematics (Fuses F33PA, F34PA, F35PA, and F36PA)

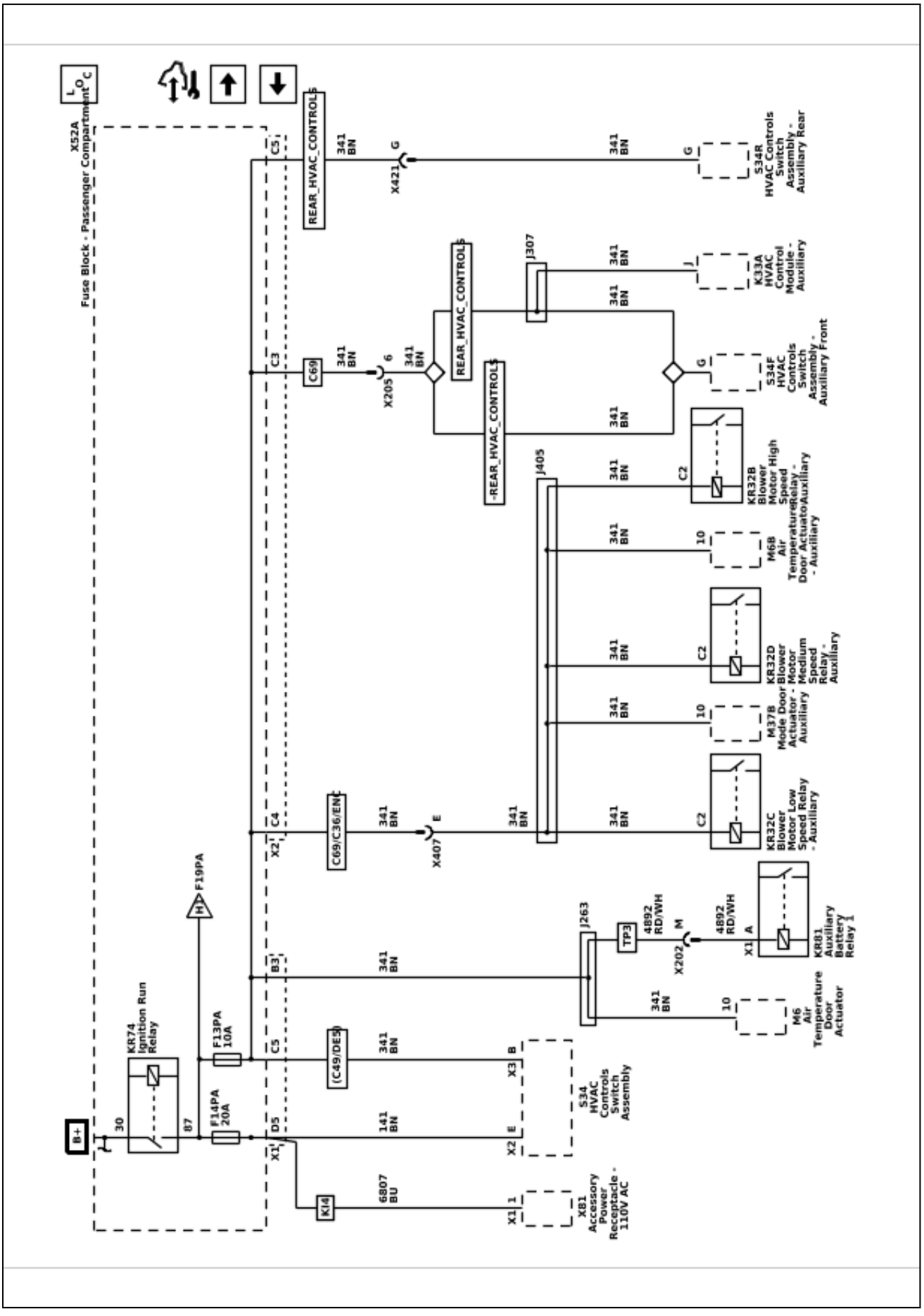


6600220

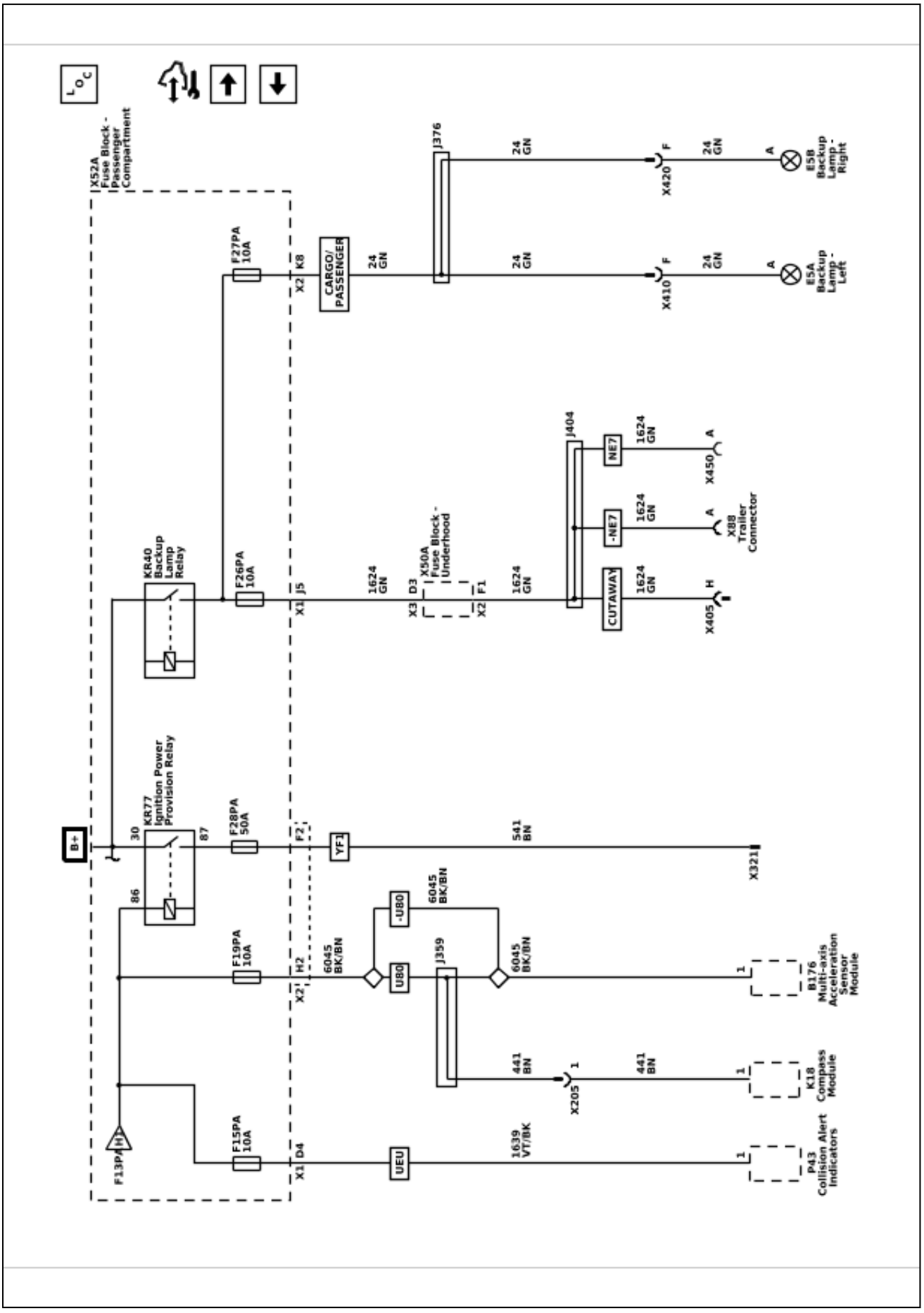
Power Distribution Schematics (Fuses F16PA, F31PA, and F32PA)



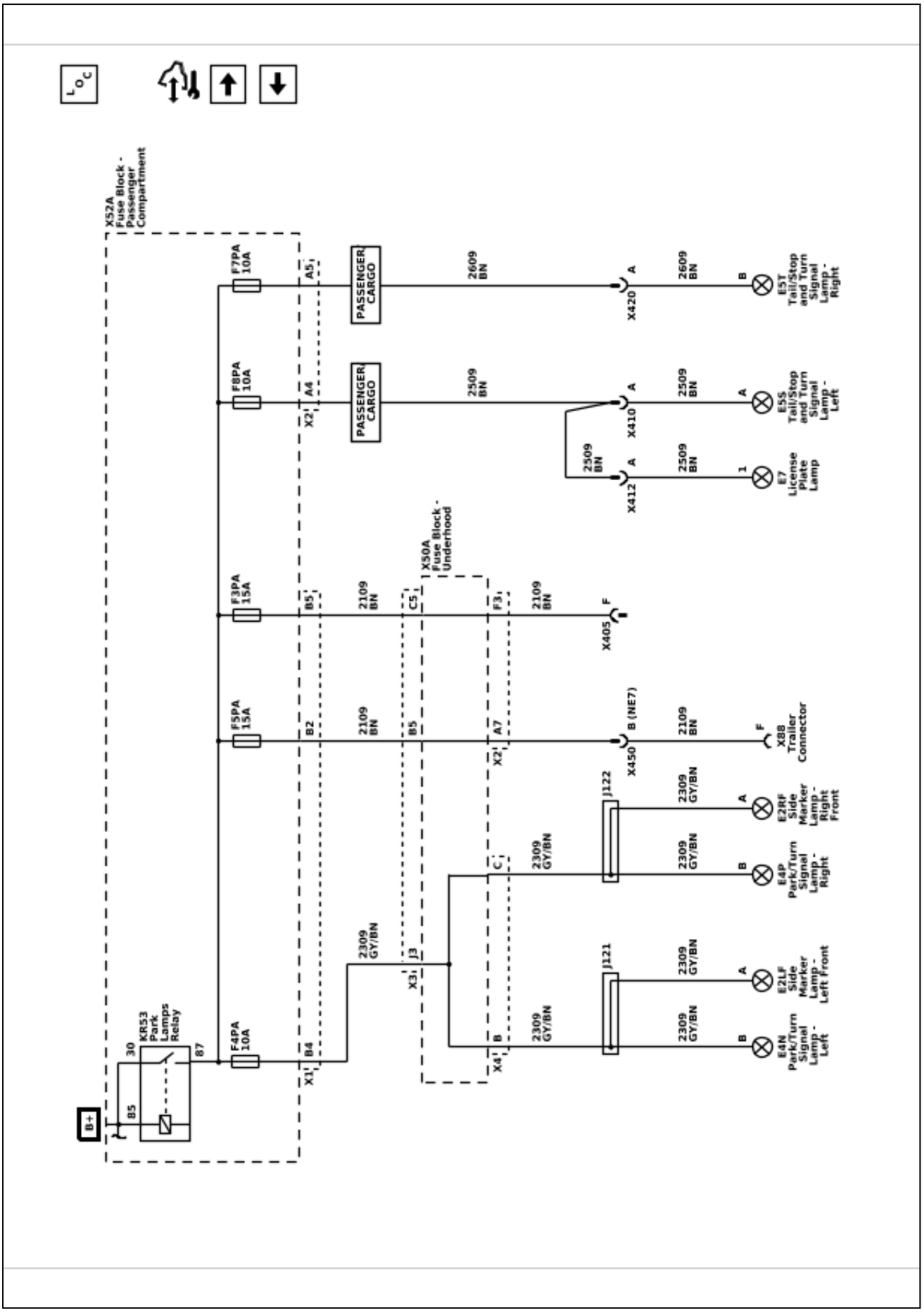
Power Distribution Schematics (Fuses F13PA and F14PA)



Power Distribution Schematics (Fuses F15PA, F19PA, F26PA, F27PA, and F28PA)

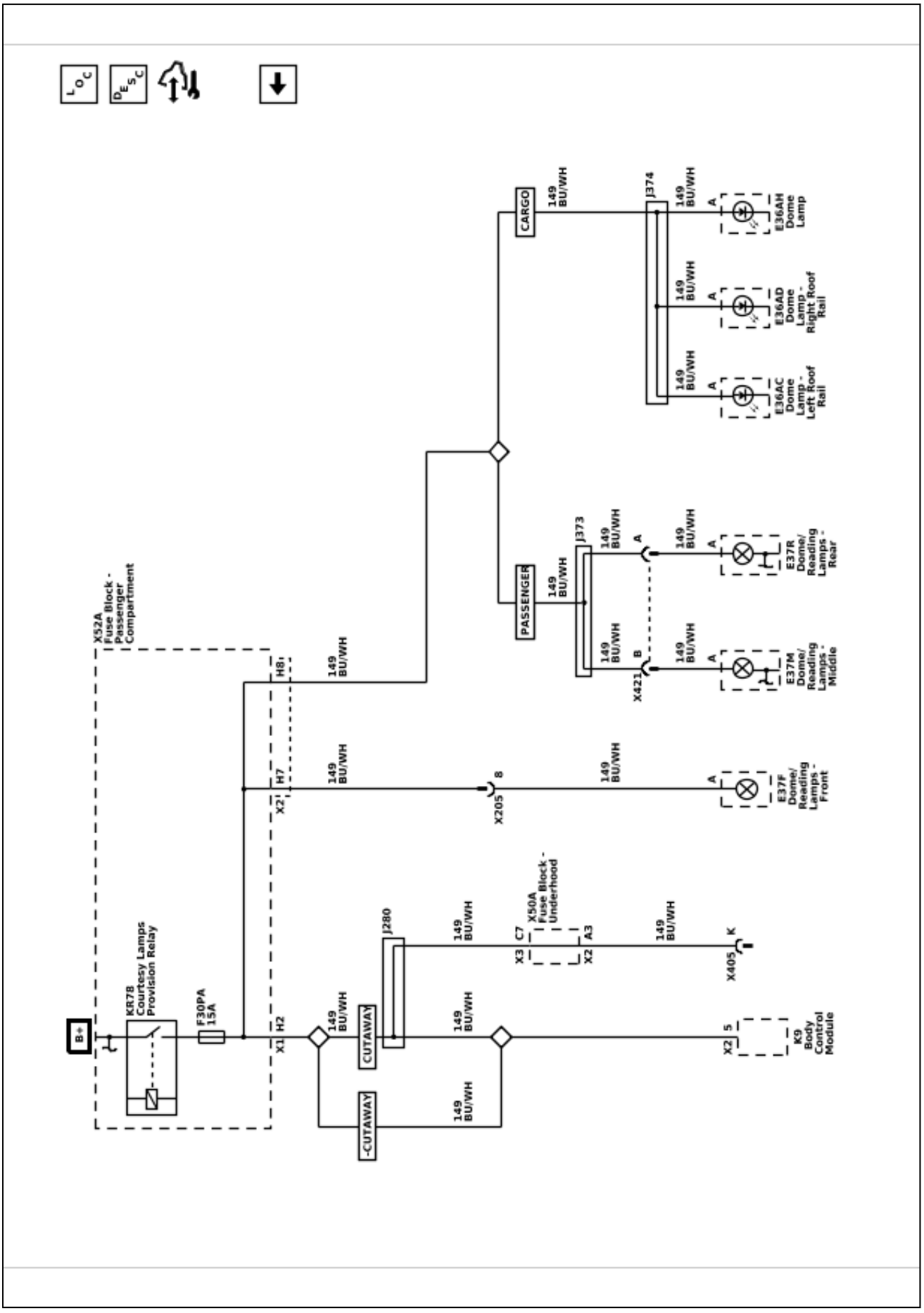


Power Distribution Schematics (Fuses F3PA, F4PA, F5PA, F7PA, and F8PA)

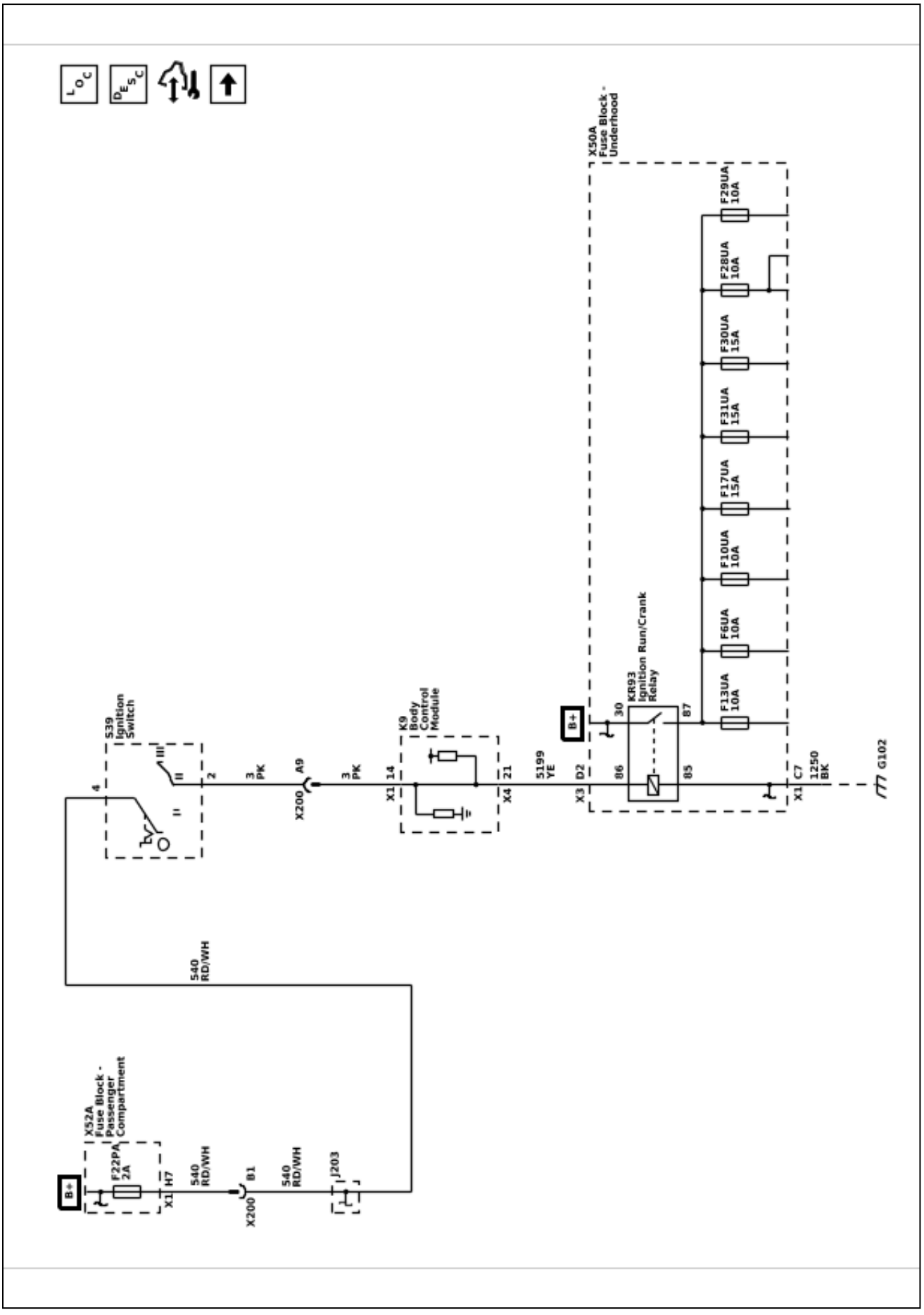


6600224

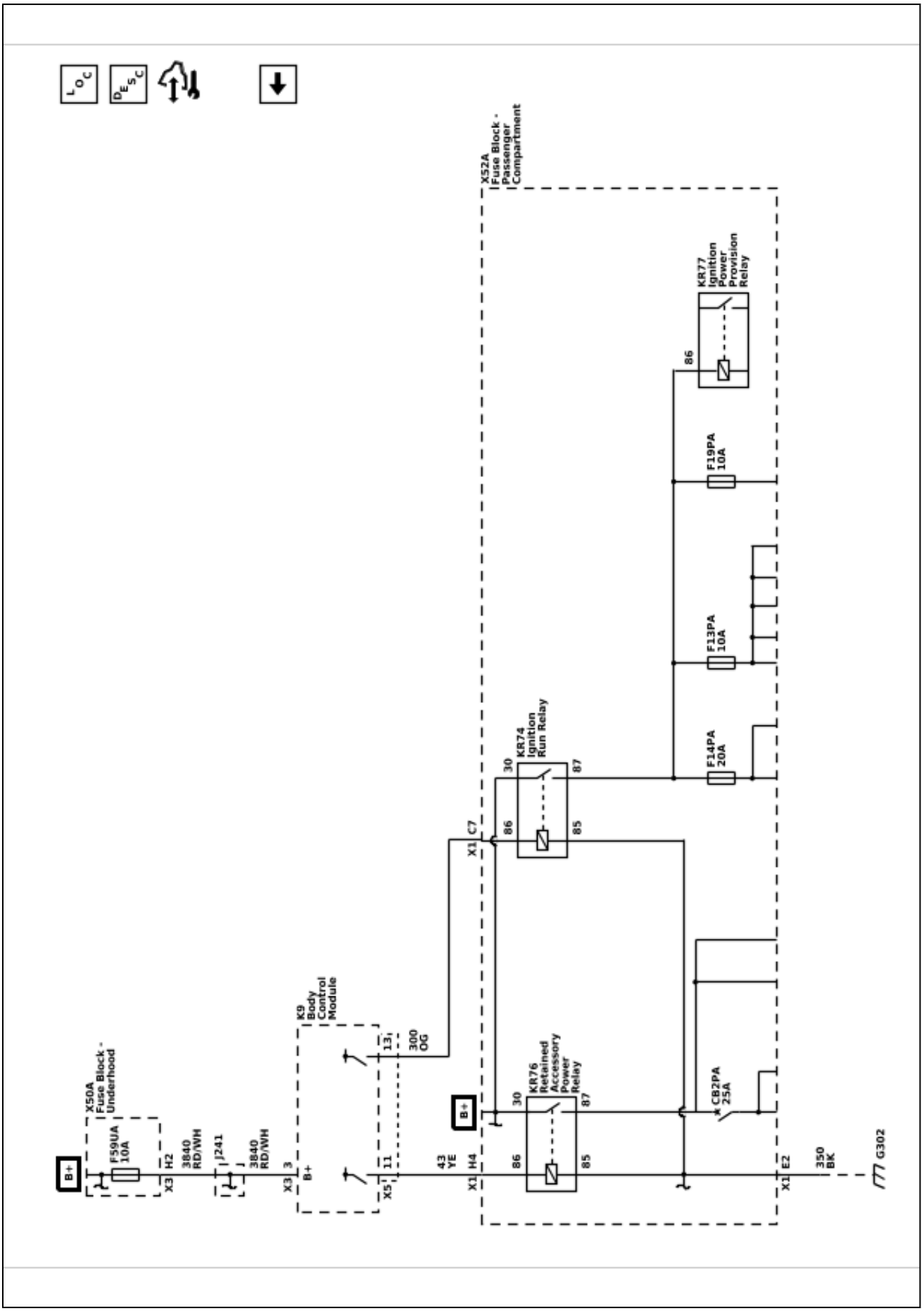
Power Distribution Schematics (Fuse F30PA)



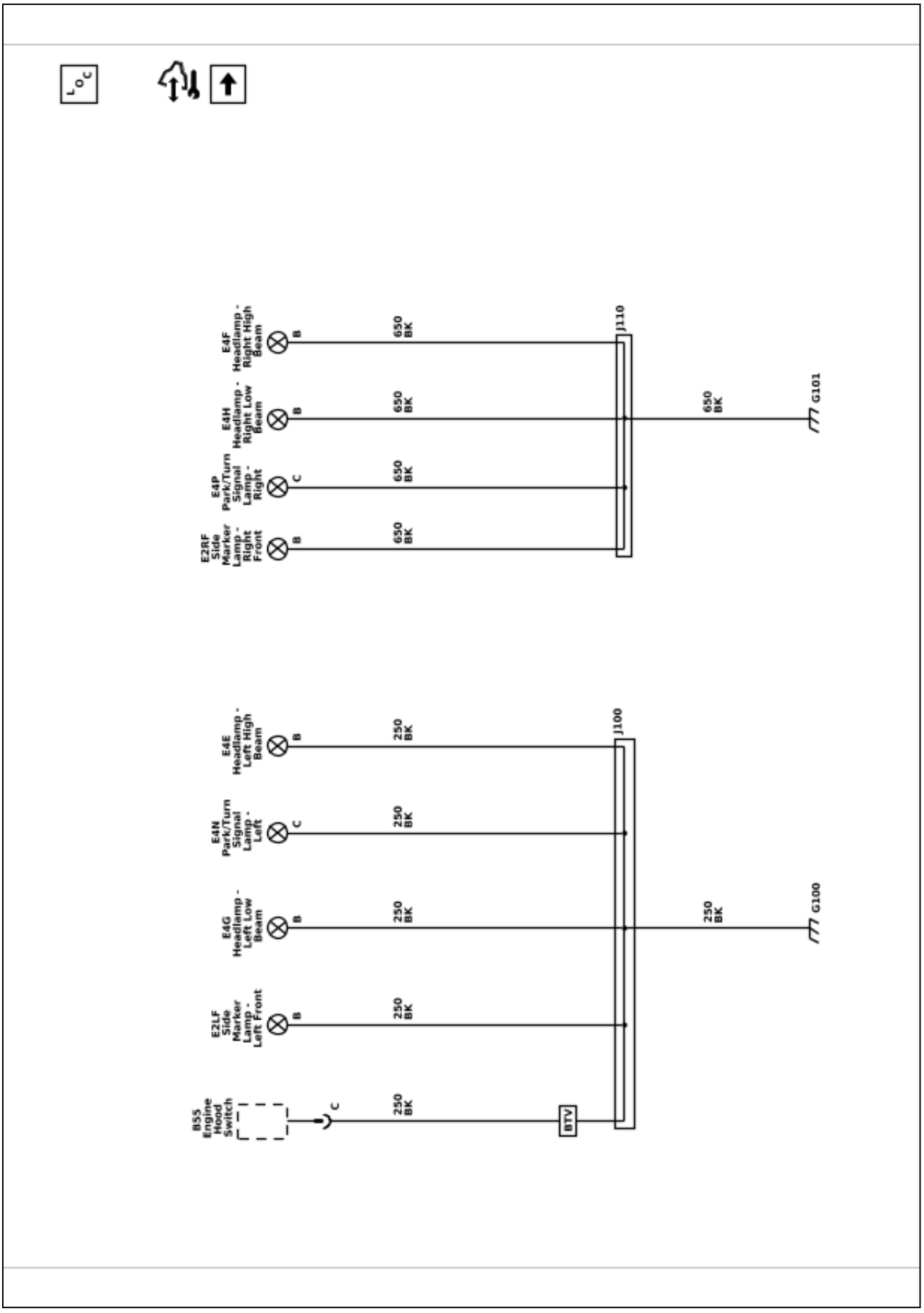
Power Moding Schematics (Ignition Run/Crank Relay)



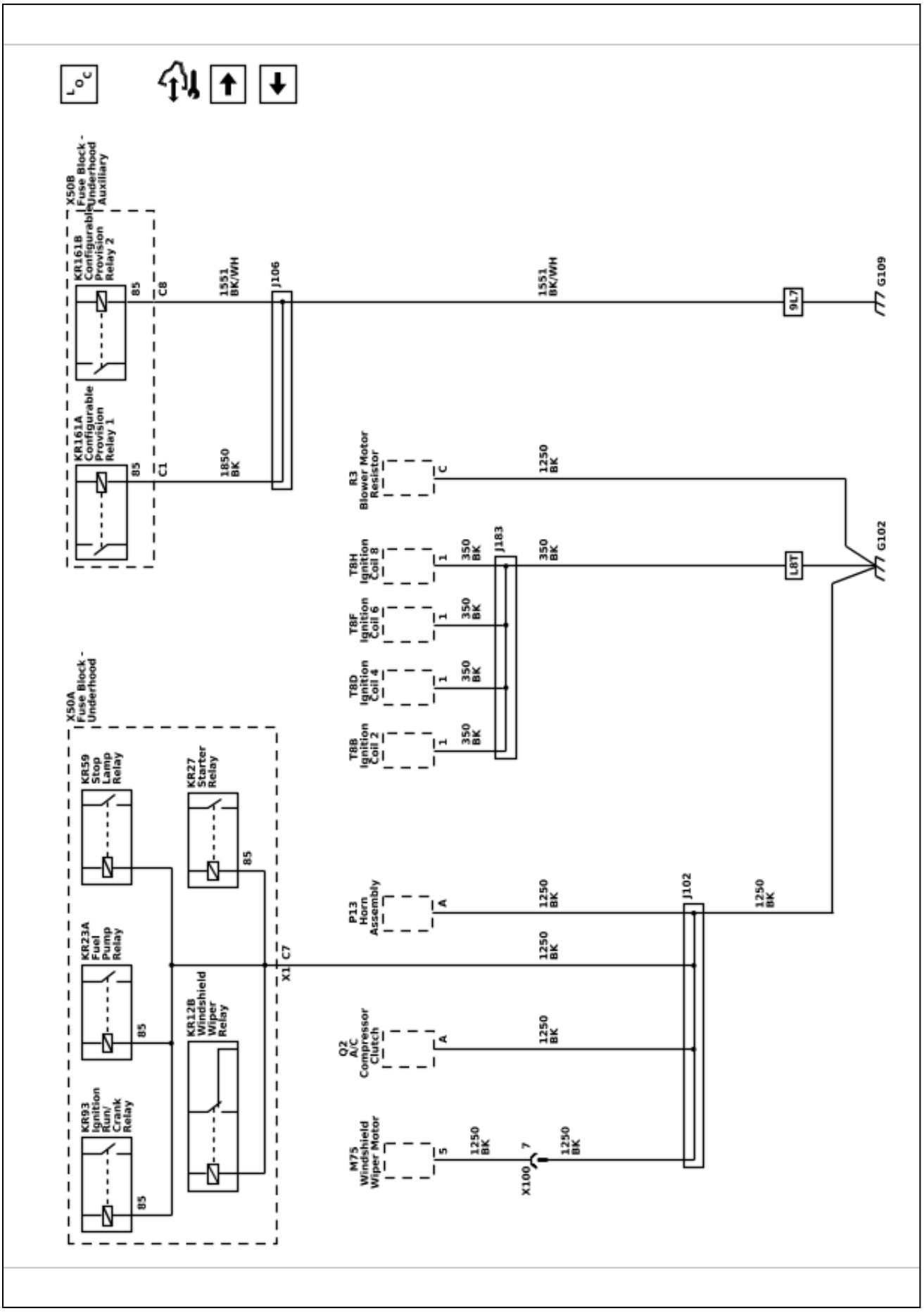
Power Moding Schematics (Retained Accessory Power Relay and Ignition Run Relay)



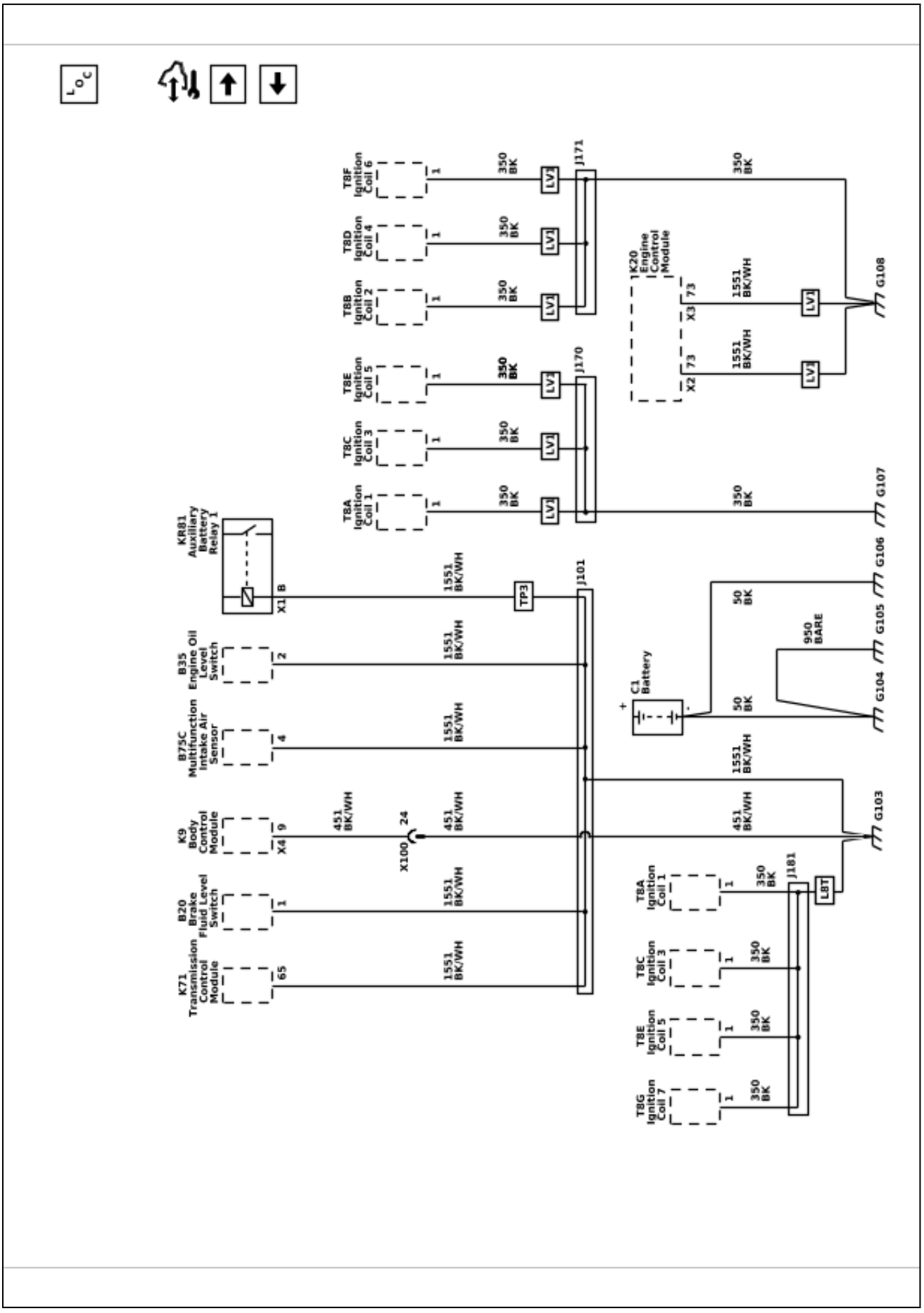
Ground Distribution Schematics (G100 and G101)



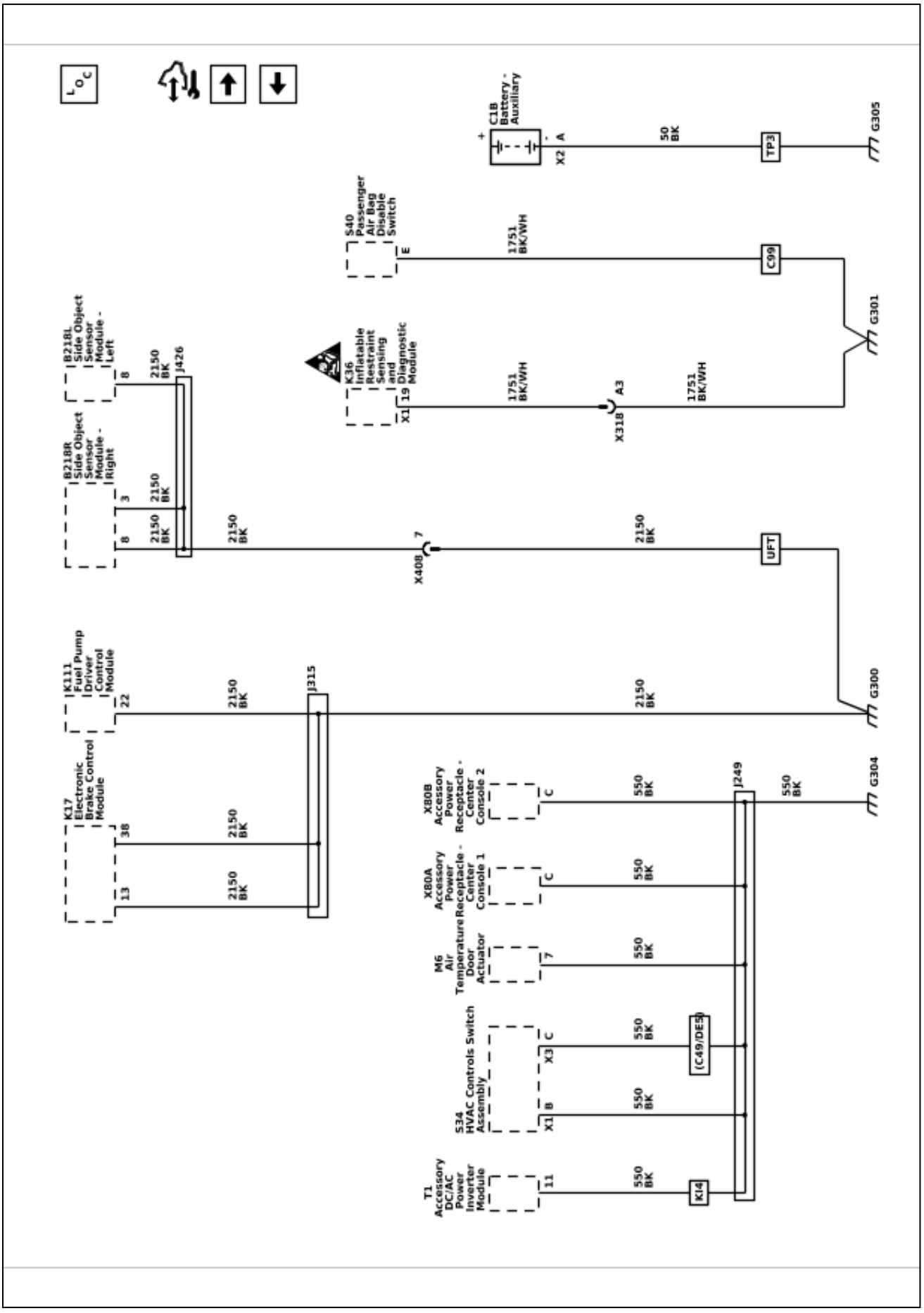
Ground Distribution Schematics (G102 and G109)



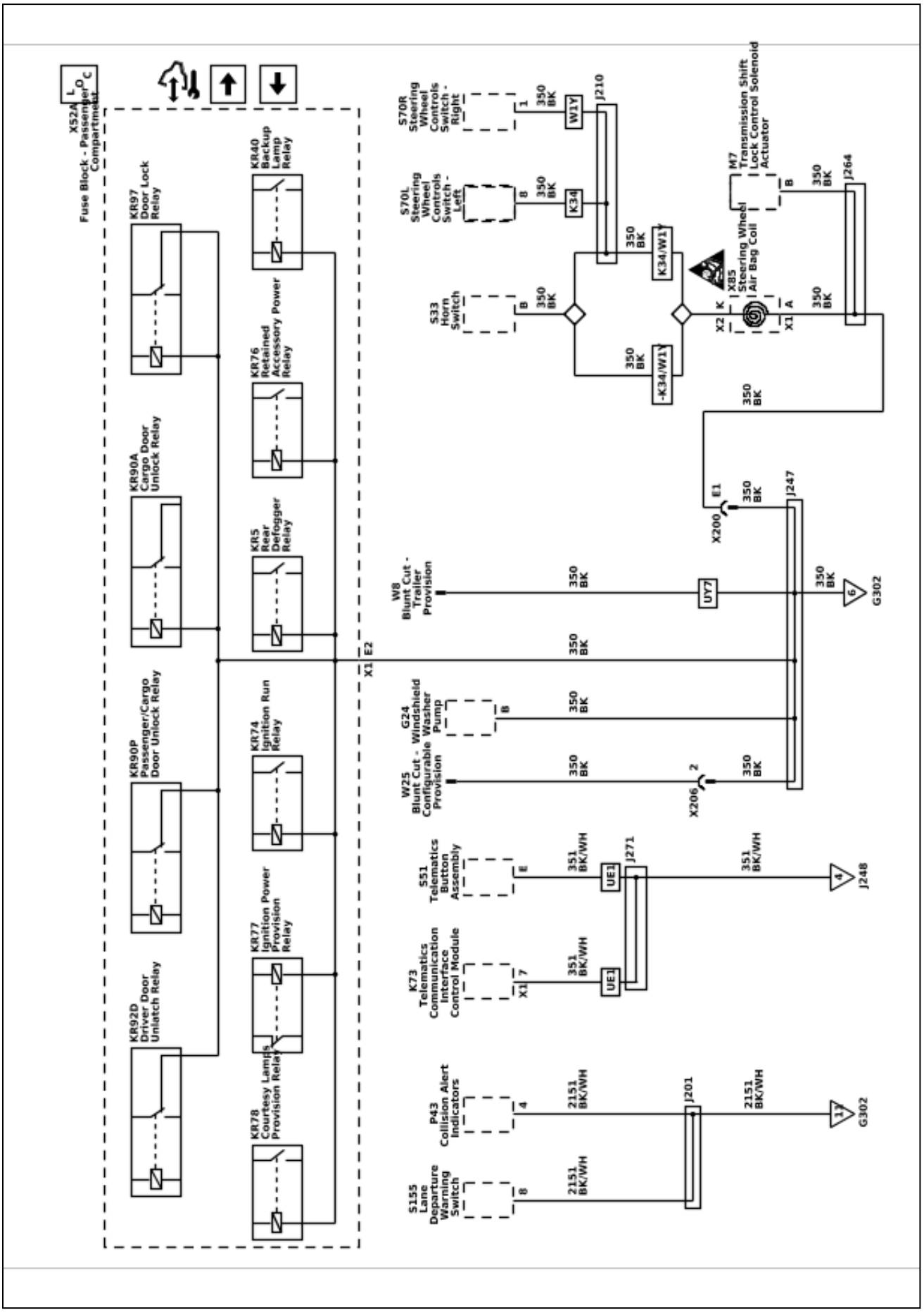
Ground Distribution Schematics (G103, G104, G105, G106, G107 and G108)



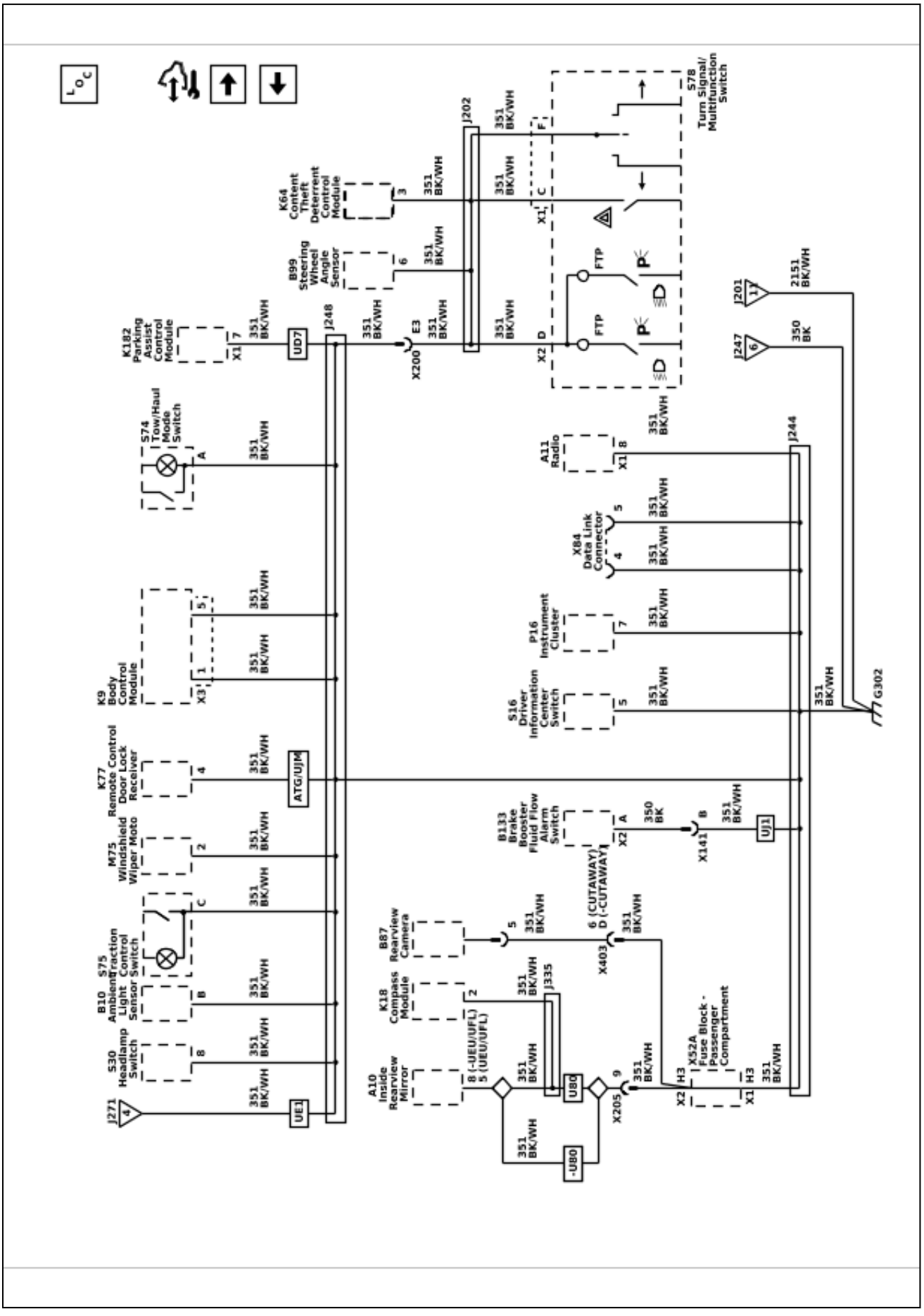
Ground Distribution Schematics (G300, G301, G304, and G305)



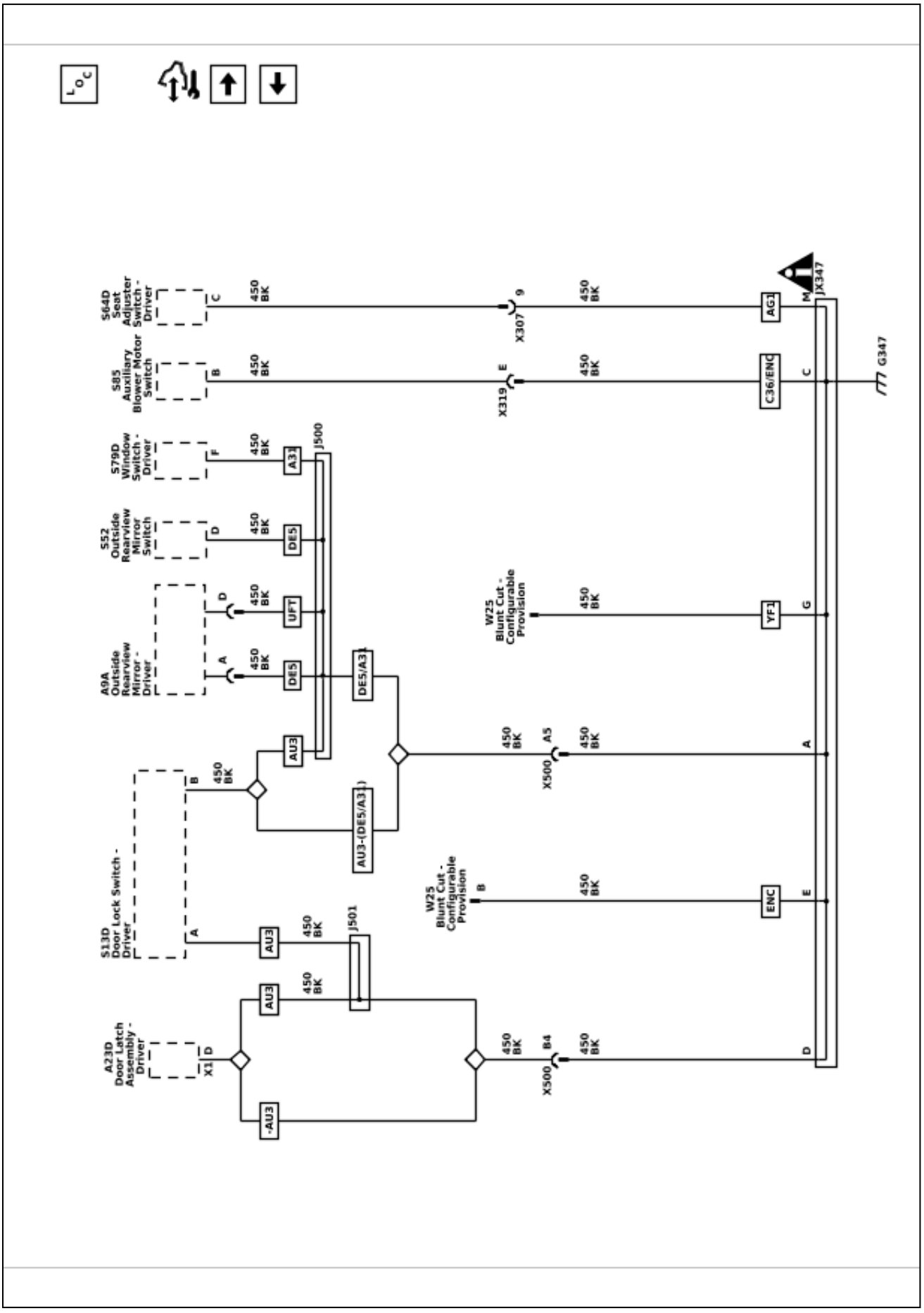
Ground Distribution Schematics (G302 - 1 of 2)



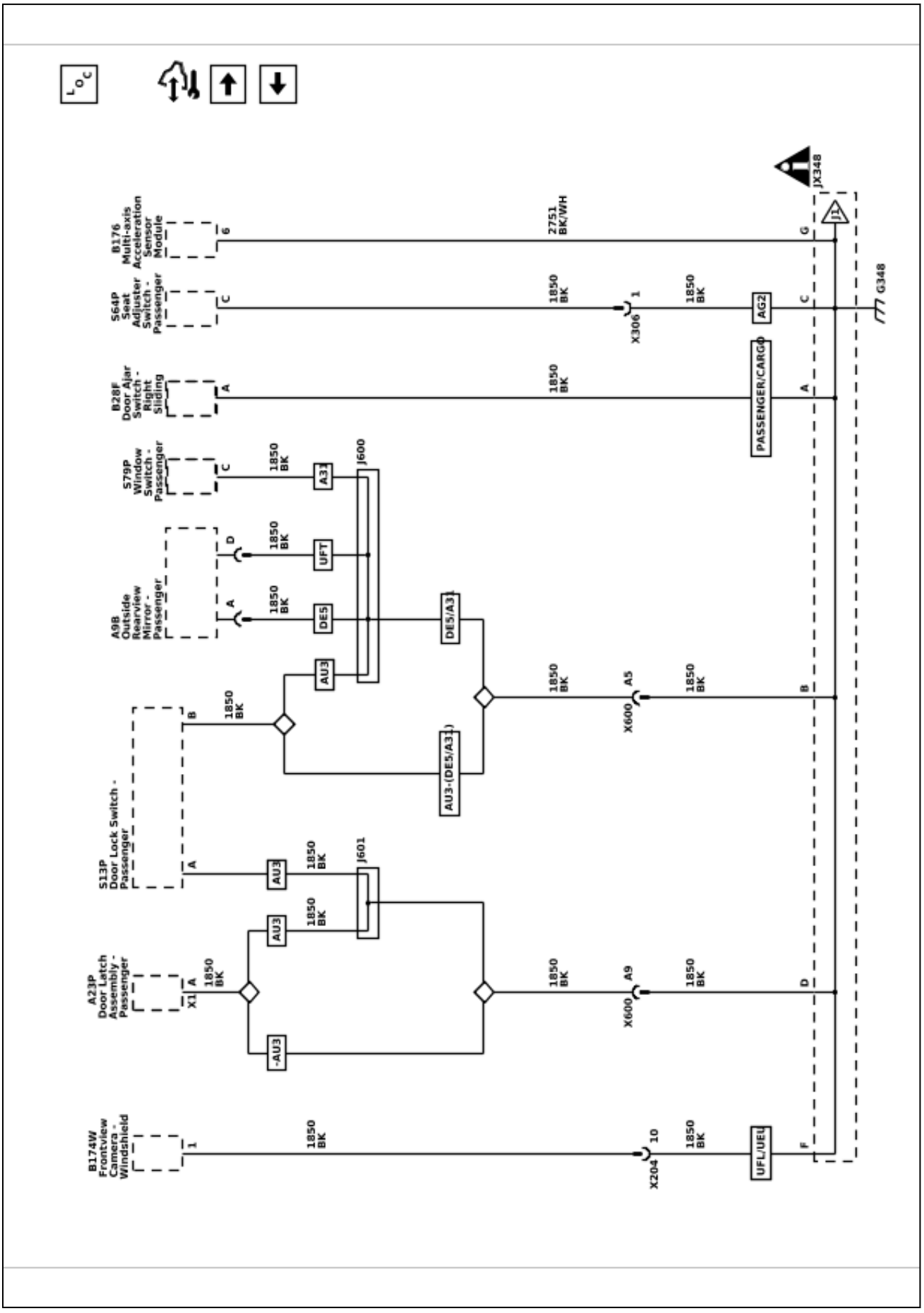
Ground Distribution Schematics (G302 - 2 of 2)



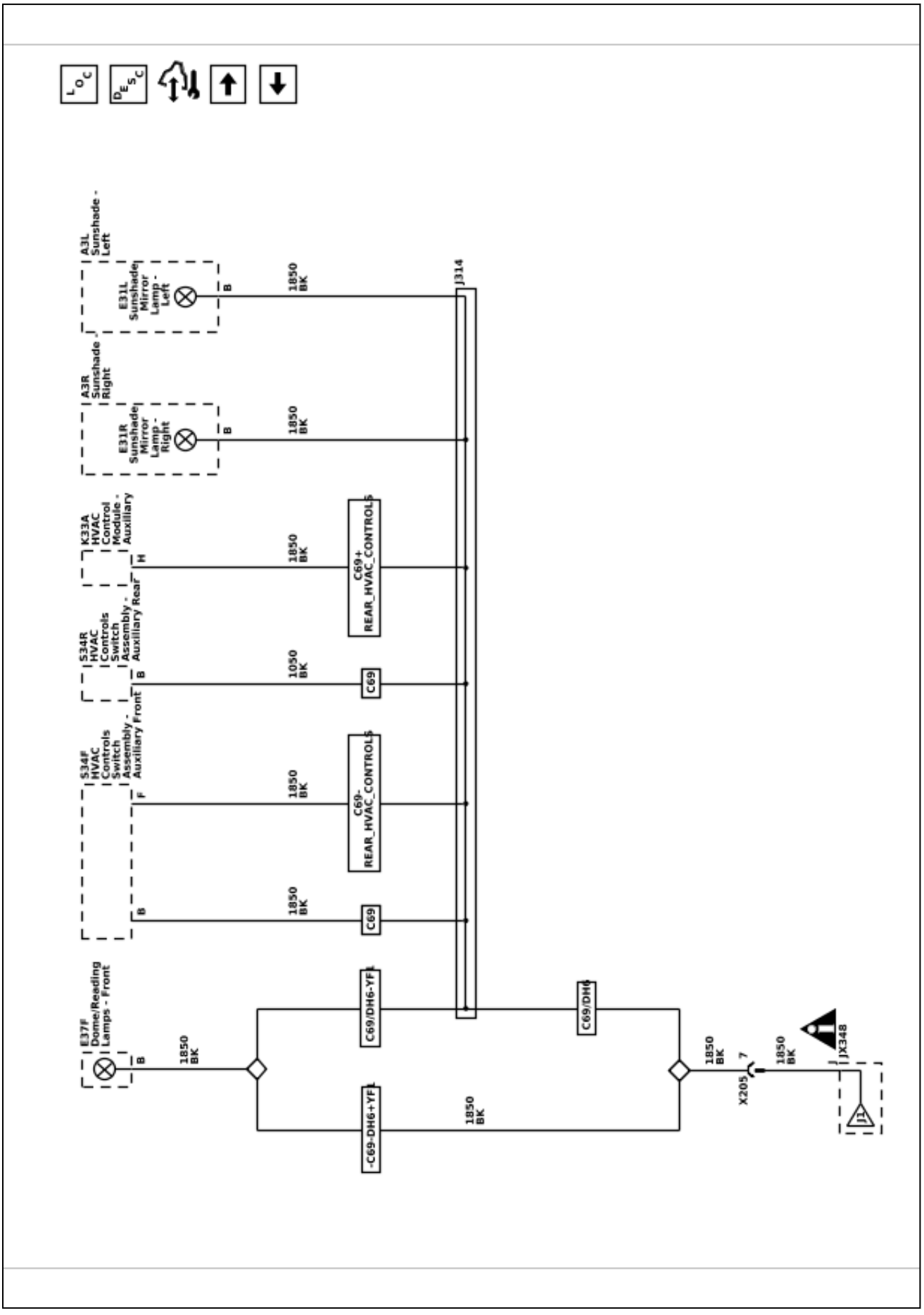
Ground Distribution Schematics (G347)



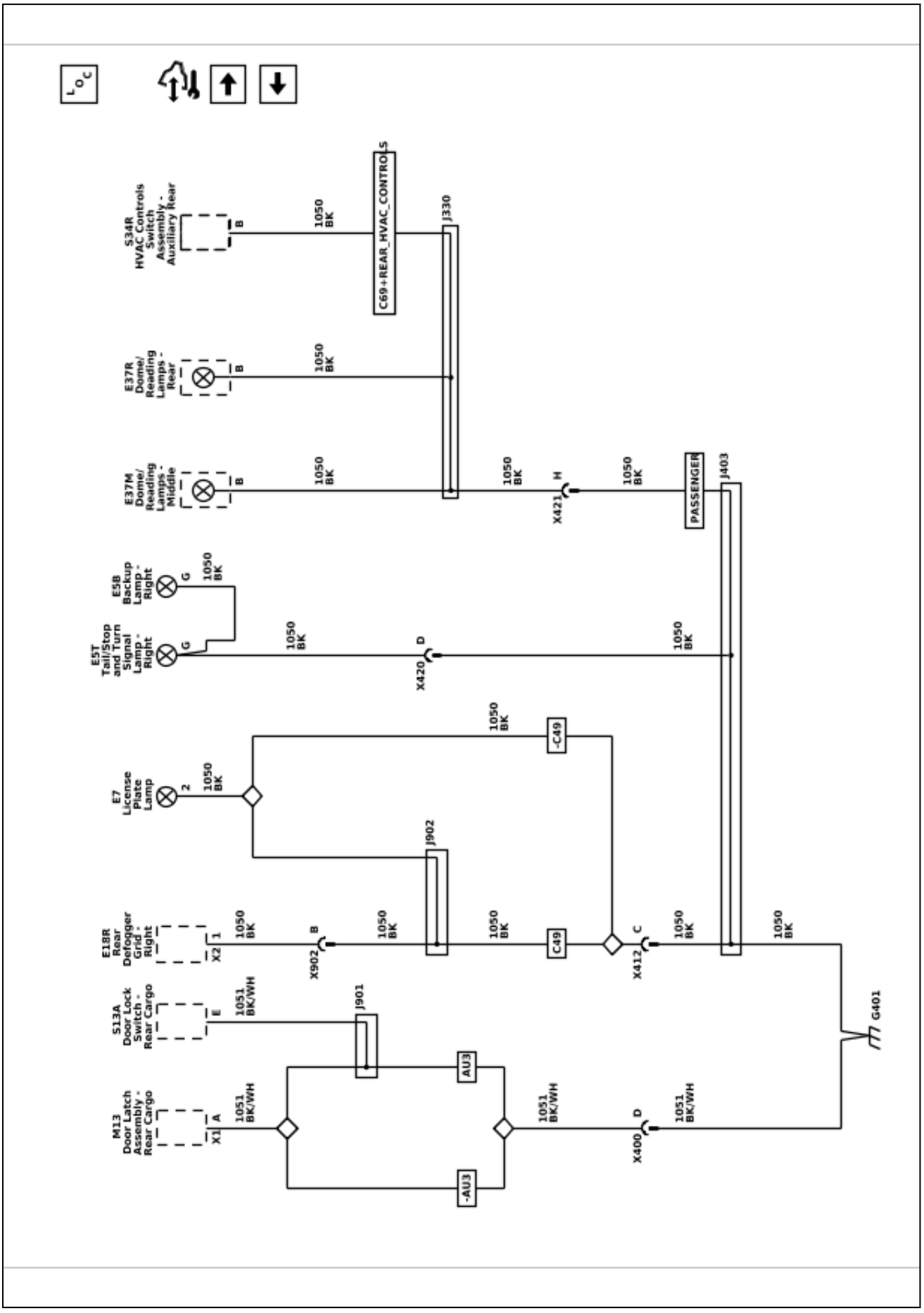
Ground Distribution Schematics (G348 - 1 of 2)



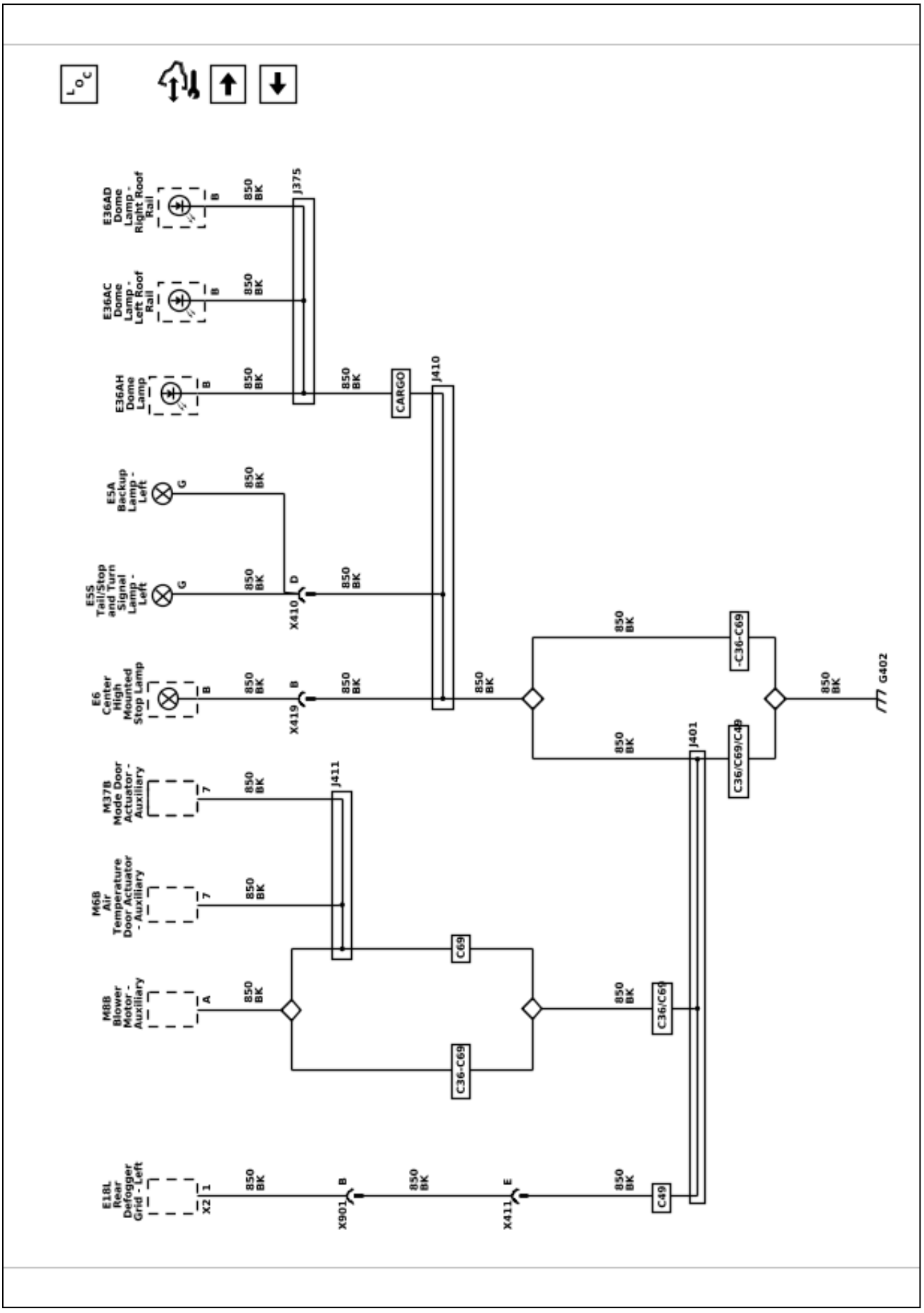
Ground Distribution Schematics (G348 - 2 of 2)



Ground Distribution Schematics (G401 - Passenger/Cargo)

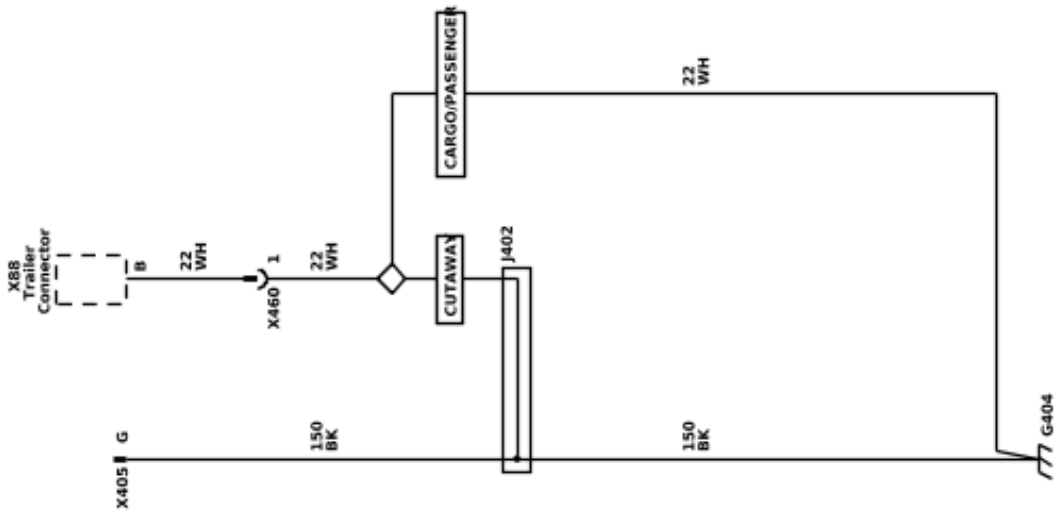


Ground Distribution Schematics (G402 - Passenger/Cargo)

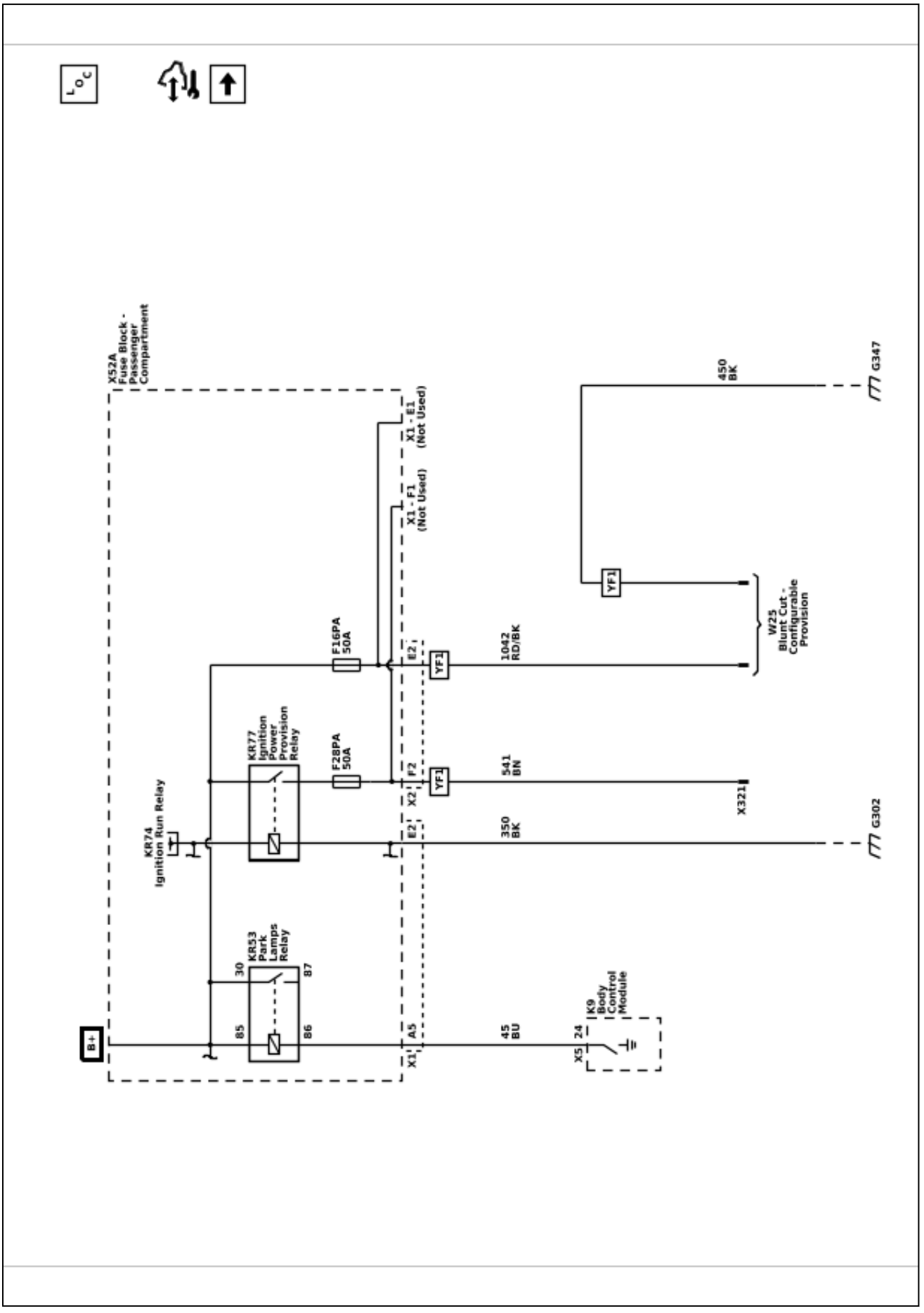


6600238

Ground Distribution Schematics (G404)

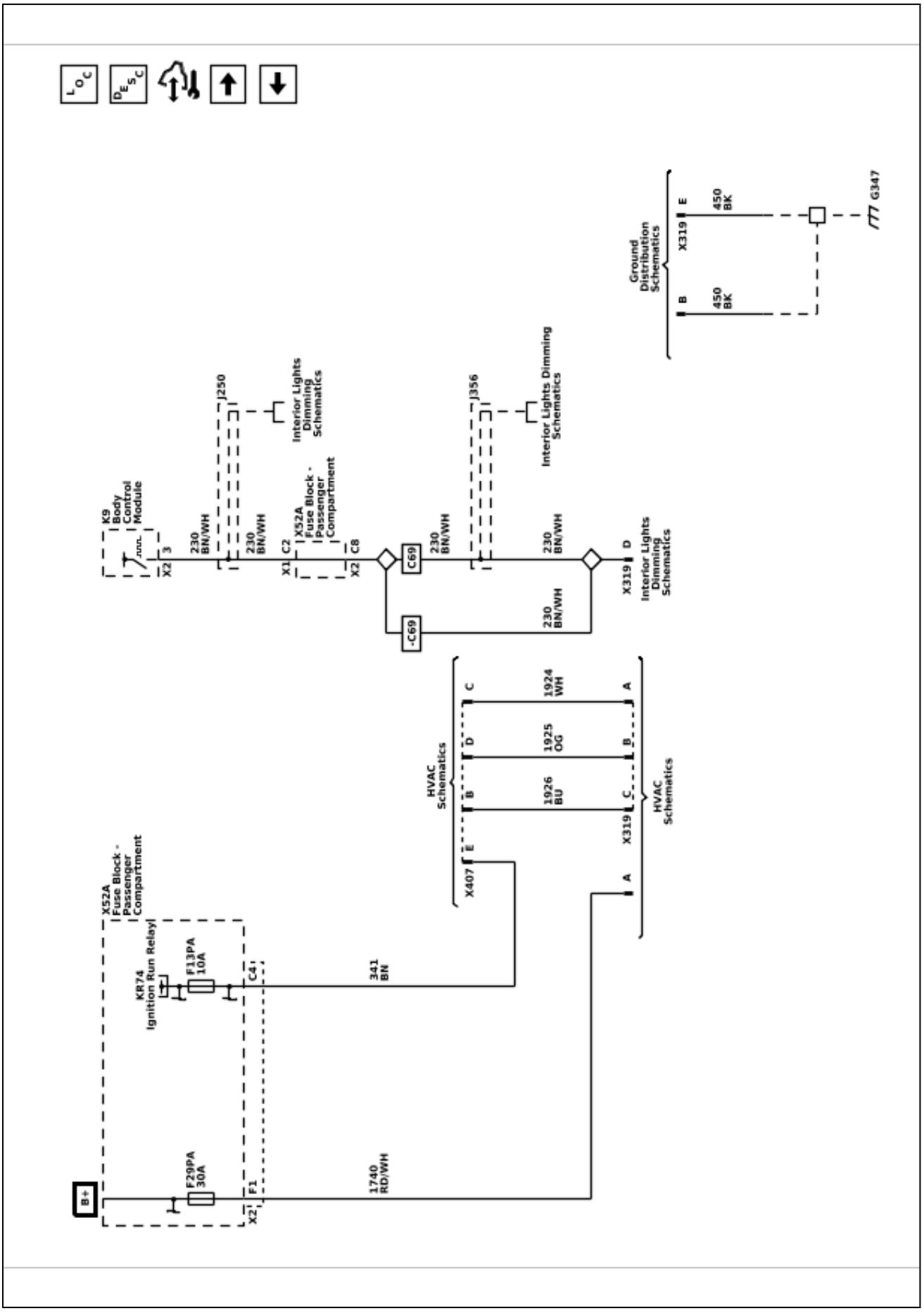


Upfitter Provision Schematics (Power, Ground, and Relay Controls)

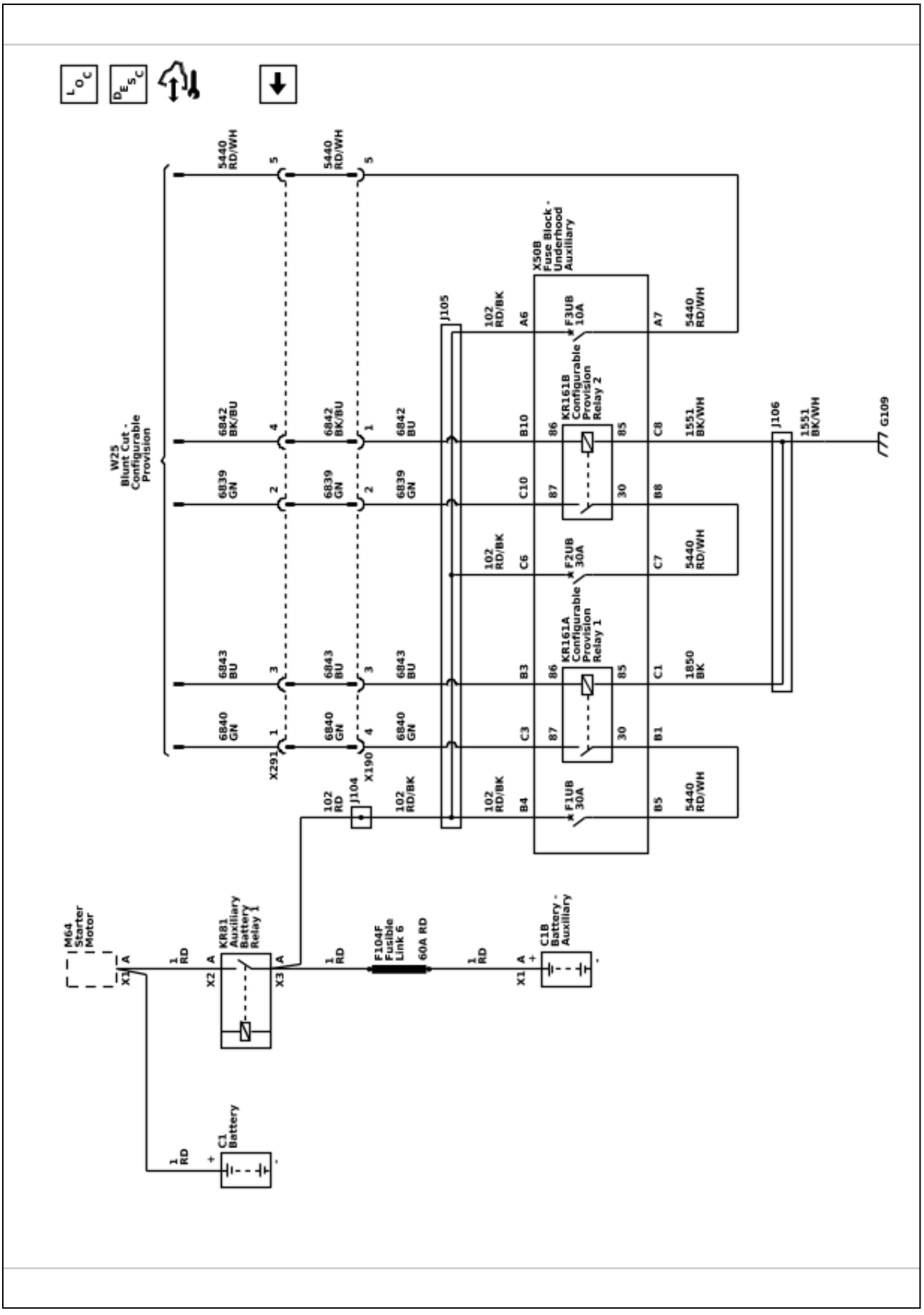


6600240

Upfitter Provision Schematics (Rear Heat Auxiliary (ENC))



Upfitter Provision Schematics (Upfitter Fuse Block (9L7))



Component Locator

Master Electrical Component List

Master Electrical Component List

Code	Name	Option	Location	Locator View	Connector End View
A3L	Sunshade - Left	DH6	On the upper left of the headliner	Headliner Components - Front	A3L Sunshade - Left (DH6)
A3R	Sunshade - Right	DH6	On the upper right of the headliner	Headliner Components - Front	A3R Sunshade - Right (DH6)
A5	Driver Information Center	—	Integral to P16 Instrument Cluster	—	—
A7	Fuel Pump and Level Sensor Assembly	—	In the vehicle underbody, in the fuel tank	• Fuel Tank Components (- NE7) • Fuel Tank Components (NE7)	A7 Fuel Pump and Level Sensor Assembly
A9A	Outside Rearview Mirror - Driver	—	Attached to the exterior of the left front door	Driver Door Components	A9A Outside Rearview Mirror - Driver
A9B	Outside Rearview Mirror - Passenger	—	Attached to the exterior of the right front door	Front Passenger Door Components	A9B Outside Rearview Mirror - Passenger
A10	Inside Rearview Mirror	(UEU/UFL)/-(UEU/UFL)	In the passenger compartment, mounted at the top center of the windshield	Headliner Components - Front	• A10 Inside Rearview Mirror (-(UEU / UFL)) • A10 Inside Rearview Mirror (UEU / UFL)
A11	Radio	—	In the center of the instrument panel	Instrument Panel Components - 1 of 2	• A11 Radio X1 • A11 Radio X2 • A11 Radio X3
A23D	Door Latch Assembly - Driver	—	Towards the rear of the driver door	Driver Door Components	• A23D Door Latch Assembly - Driver X1 • A23D Door Latch Assembly - Driver X2
A23P	Door Latch Assembly - Passenger	—	Towards the rear of the passenger door	Front Passenger Door Components	• A23P Door Latch Assembly - Passenger X1 • A23P Door Latch Assembly - Passenger X2
A91	Mirror Display	UVC	Internal to A10 Inside Rearview Mirror	—	—
B1	A/C Refrigerant Pressure Sensor	—	On the engine harness in the left rear side of the engine compartment	Engine Compartment Components - 2 of 3	B1 A/C Refrigerant Pressure Sensor
B1B	A/C Low Side Pressure Switch	—	Right rear side of the engine compartment, on the side of the accumulator	Engine Compartment Components - 2 of 3	B1B A/C Low Side Pressure Switch
B5LF	Wheel Speed Sensor - Left Front	—	At the left front wheel	Wheel Speed Sensors - Cargo/ Passenger	B5LF Wheel Speed Sensor - Left Front

Code	Name	Option	Location	Locator View	Connector End View
B5LR	Wheel Speed Sensor - Left Rear	—	At the left rear wheel, attached to the backing plate	• Wheel Speed Sensors - Cargo/ Passenger • Wheel Speed Sensors - Cutaway with DRW • Wheel Speed Sensors - Cutaway with SRW	B5LR Wheel Speed Sensor - Left Rear
B5RF	Wheel Speed Sensor - Right Front	—	At the right front wheel	Wheel Speed Sensors - Cargo/ Passenger	B5RF Wheel Speed Sensor - Right Front
B5RR	Wheel Speed Sensor - Right Rear	(R04)/-(R04)	At the right rear wheel, attached to the backing plate	• Wheel Speed Sensors - Cargo/ Passenger • Wheel Speed Sensors - Cutaway with DRW • Wheel Speed Sensors - Cutaway with SRW	• B5RR Wheel Speed Sensor - Right Rear (- R04) • B5RR Wheel Speed Sensor - Right Rear (R04)
B9	Ambient Air Temperature Sensor	L8T/LV1/UFA	Attached to the front center of the radiator support	Front of Vehicle Components	• B9 Ambient Air Temperature Sensor (LV1 / L8T) • B9 Ambient Air Temperature Sensor (UFA)
B10	Ambient Light Sensor	—	On the top of the instrument panel	Instrument Panel Components - 1 of 2	B10 Ambient Light Sensor
B12B	Transmission Fluid Pressure Sensor	—	Under the vehicle, center, within T12 Automatic Transmission Assembly	—	B12B Transmission Fluid Pressure Sensor
B13	Transmission Fluid Temperature Sensor	—	Internal to T12 Automatic Transmission Assembly	—	B13 Transmission Fluid Temperature Sensor
B14A	Transmission Output Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	Automatic Transmission Internal Electrical Components	—
B14C	Transmission Input Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	—	—
B14D	Transmission Intermediate Shaft Speed Sensor	—	Under the vehicle, internal to the Transmision Assembly	—	—
B19A	Brake Booster Fluid Pressure Alarm Switch	UJ1	In the power steering inlet hose, near the power steering pump	Brake Booster Fluid Alarm Switches (UJ1)	B19A Brake Booster Fluid Pressure Alarm Switch (UJ1)
B20	Brake Fluid Level Switch	—	Left rear of the engine compartment, attached to the left lower side of the brake fluid reservoir	Engine Compartment Components - 1 of 3	B20 Brake Fluid Level Switch
B22	Brake Pedal Position Sensor	—	Attached to brake pedal assembly	Instrument Panel Components - 1 of 2	B22 Brake Pedal Position Sensor
B23	Camshaft Position Sensor	—	Front of the engine between the water pump and the crank pulley	—	B23 Camshaft Position Sensor

Code	Name	Option	Location	Locator View	Connector End View
B24	Mobile Telephone Microphone	UE1	In the passenger compartment, in the overhead console	Headliner Components - Front	B24 Mobile Telephone Microphone (UE1)
B26	Crankshaft Position Sensor	—	Attached to the lower right rear side of the engine, behind the starter	• Left Side of the Engine Components (L8T) • Lower Left Rear of the Engine Components (LV1)	B26 Crankshaft Position Sensor
B28F	Door Ajar Switch - Right Sliding	Cargo/ Passenger	Mounted towards the bottom of the right rear door	Passenger Compartment Components	B28F Door Ajar Switch - Right Sliding
B34	Engine Coolant Temperature Sensor	L8T/LV1	Attached to the engine coolant thermostat housing	• Front of the Engine Components (LV1) • Right Side of the Engine Components (L8T)	• B34 Engine Coolant Temperature Sensor (L8T) • B34 Engine Coolant Temperature Sensor (LV1)
B35	Engine Oil Level Switch	L8T/LV1	Attached to the left side of the oil pan	• Left Side of the Engine Components (L8T) • Left Side of the Engine Components (L8T) • Lower Left Rear of the Engine Components (LV1)	• B35 Engine Oil Level Switch (L8T) • B35 Engine Oil Level Switch (LV1)
B36	Engine Oil Temperature Sensor	L8T	In the engine compartmnet, near the left rear of the engine block	Right Side of the Engine Components (L8T)	B36 Engine Oil Temperature Sensor (L8T)
B37B	Engine Oil Pressure Sensor	—	In engine compartment, on the rear lower left side of the engine	• Front of the Engine Components (LV1) • Top of Engine Components (L8T)	B37B Engine Oil Pressure Sensor
B46	Fuel Level Sensor	—	Under the vehicle, in the fuel tank	Inside of Fuel Tank Components	—
B47	Fuel Pressure Sensor	—	Under the vehicle, near the fuel tank	• Frame and Underbody Components (- NE7) • Frame and Underbody Components (NE7)	• B47 Fuel Pressure Sensor - Without Cutaway • B47 Fuel Pressure Sensor - Cutaway
B47B	Fuel Rail Pressure Sensor	—	In the engine compartment, on top of the engine, mounted to the rear of the right fuel rail	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	B47B Fuel Rail Pressure Sensor
B52C	Heated Oxygen Sensor - Bank 1 Sensor 1	—	Attached to the left front exhaust pipe, front of the catalytic converter	• Rear of the Engine Components (LV1) • Right Side of the Engine Components (L8T)	B52C Heated Oxygen Sensor - Bank 1 Sensor 1
B52D	Heated Oxygen Sensor - Bank 1 Sensor 2	—	Attached to the left front exhaust pipe, back of the catalytic converter	• Rear of the Engine Components (LV1) • Right Side of the Engine Components (L8T)	B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Code	Name	Option	Location	Locator View	Connector End View
B52E	Heated Oxygen Sensor - Bank 2 Sensor 1	—	Attached to the right front exhaust pipe, front of the catalytic converter	• Left Side of the Engine Components (L8T) • Rear of the Engine Components (LV1)	B52E Heated Oxygen Sensor - Bank 2 Sensor 1
B52F	Heated Oxygen Sensor - Bank 2 Sensor 2	—	Attached to the right front exhaust pipe, rear of the catalytic converter	• Left Side of the Engine Components (L8T) • Rear of the Engine Components (LV1)	B52F Heated Oxygen Sensor - Bank 2 Sensor 2
B55	Engine Hood Switch	BTV	In the center front of the engine compartment, attached to the hood latch assembly	Front of Vehicle Components	B55 Engine Hood Switch (BTV)
B59	Front Impact Sensor	—	On the lower center of the radiator support	• Airbag Impact Sensor Components (E24) • Airbag Impact Sensor Components (YA2)	B59 Front Impact Sensor
B63LF	Side Impact Sensor - Left Front	ASF	In the left front side door	• Airbag Impact Sensor Components (E24) • Airbag Impact Sensor Components (YA2)	B63LF Side Impact Sensor - Left Front (ASF)
B63LR	Side Impact Sensor - Left Rear	ASF	In the left center of the vehicle behind the body panel trim	• Airbag Impact Sensor Components (E24) • Airbag Impact Sensor Components (YA2)	B63LR Side Impact Sensor - Left Rear (ASF)
B63RF	Side Impact Sensor - Right Front	ASF	In the right front side door	—	B63RF Side Impact Sensor - Right Front (ASF)
B63RR	Side Impact Sensor - Right Rear	YA2/E24	In the lower right side of the vehicle near the rear side door	• Airbag Impact Sensor Components (E24) • Airbag Impact Sensor Components (YA2)	• B63RR Side Impact Sensor - Right Rear (E24) • B63RR Side Impact Sensor - Right Rear (YA2)
B68A	Knock Sensor 1	—	Mounted to the lower right side of the engine in-between the engine oil pan and the right bank exhaust manifold	• Lower Right Rear of the Engine Components (LV1) • Right Side of the Engine Components (L8T)	B68A Knock Sensor 1
B68B	Knock Sensor 2	—	Mounted to the lower left of the engine, in-between the engine oil filter and the left bank exhaust manifold	• Left Side of the Engine Components (L8T) • Lower Left Rear of the Engine Components (LV1)	B68B Knock Sensor 2
B74	Manifold Absolute Pressure Sensor	—	In the engine compartment, attached to the intake manifold, on top of the engine	• Front of the Engine Components (LV1) • Right Side of the Engine Components (L8T)	B74 Manifold Absolute Pressure Sensor

Code	Name	Option	Location	Locator View	Connector End View
B75C	Multifunction Intake Air Sensor	—	Right front of the engine compartment, mounted in the air cleaner duct	Engine Compartment Components - 2 of 3	B75C Multifunction Intake Air Sensor
B80	Park Brake Switch	—	Left lower side of the instrument panel on the brake pedal assembly	—	B80 Park Brake Switch
B87	Rearview Camera	UVC	On the right rear cargo door, in license plate trim	Rear of Vehicle Components - Passenger/Cargo	B87 Rearview Camera (UVC)
B88D	Seat Belt Switch - Driver	—	Right side of the driver seat, inside Seat Belt Buckle — Driver	—	—
B99	Steering Wheel Angle Sensor	—	Attached the lower steering column jacket assembly	Steering Column Components - 2 of 2	B99 Steering Wheel Angle Sensor
B107	Accelerator Pedal Position Sensor	—	Left lower side of the instrument panel, above the accelerator pedal	Instrument Panel Components - 1 of 2	B107 Accelerator Pedal Position Sensor
B133	Brake Booster Fluid Flow Alarm Switch	UJ1	In the power steering outlet hose, near the power steering pump	Brake Booster Fluid Alarm Switches (UJ1)	• B133 Brake Booster Fluid Flow Alarm Switch X1 (UJ1) • B133 Brake Booster Fluid Flow Alarm Switch X2 (UJ1)
B150	Fuel Tank Pressure Sensor	—	Attached to the top of the fuel sender assembly	• Frame and Underbody Components (- NE7) • Frame and Underbody Components (NE7) • Fuel Tank Components (- NE7) • Fuel Tank Components (NE7)	B150 Fuel Tank Pressure Sensor
B153D	Seat Belt Buckle - Driver	—	Right side of the driver seat	Driver Seat Components	B153D Seat Belt Buckle - Driver
B174W	Frontview Camera - Windshield	—	In the passenger compartment, mounted at the top center of the windshield	Headliner Components - Front	B174W Frontview Camera - Windshield
B176	Multi-axis Acceleration Sensor Module	—	In the passenger compartment, on the front center on the floor board between the front seats	Passenger Compartment Components	B176 Multi-axis Acceleration Sensor Module
B218L	Side Object Sensor Module - Left	UFT	At the rear of the vehicle, in the rear bumper, at the left corner	Rear of Vehicle Components - Passenger/Cargo	B218L Side Object Sensor Module - Left (UFT)
B218R	Side Object Sensor Module - Right	UFT	At the rear of the vehicle, in the rear bumper, at the right corner	Rear of Vehicle Components - Passenger/Cargo	B218R Side Object Sensor Module - Right (UFT)
B303	Transmission Range Sensor	—	Under the vehicle, center, within T12 Automatic Transmission Assembly	—	B303 Transmission Range Sensor
B306E	Parking Assist Sensor - Rear Left Outer	UD7	At the rear of the vehicle, housed in the rear fascia	Rear of Vehicle Components - Passenger/Cargo	B306E Parking Assist Sensor - Rear Left Outer (UD7)

Code	Name	Option	Location	Locator View	Connector End View
B306F	Parking Assist Sensor - Rear Left Middle	UD7	At the rear of the vehicle, housed in the rear fascia	Rear of Vehicle Components - Passenger/Cargo	B306F Parking Assist Sensor - Rear Left Middle (UD7)
B306G	Parking Assist Sensor - Rear Right Middle	UD7	At the rear of the vehicle, housed in the rear fascia	Rear of Vehicle Components - Passenger/Cargo	B306G Parking Assist Sensor - Rear Right Middle (UD7)
B306H	Parking Assist Sensor - Rear Right Outer	UD7	At the rear of the vehicle, housed in the rear fascia	Rear of Vehicle Components - Passenger/Cargo	B306H Parking Assist Sensor - Rear Right Outer (UD7)
C1	Battery	—	At the right front side of the engine compartment	Engine Compartment Components - 3 of 3	• C1 Battery - Negative • C1 Battery - Positive
C1B	Battery - Auxiliary	TP3	Left frame rail, center of the vehicle	Auxiliary Battery (TP3)	• C1B Battery - Auxiliary X1 (TP3) • C1B Battery - Auxiliary X2 (TP3)
E2LF	Side Marker Lamp - Left Front	—	In the left front corner of the vehicle	Front of Vehicle Components	E2LF Side Marker Lamp - Left Front
E2RF	Side Marker Lamp - Right Front	—	In the right front corner of the vehicle	Front of Vehicle Components	E2RF Side Marker Lamp - Right Front
E4E	Headlamp - Left High Beam	—	At the left front of the vehicle	Front of Vehicle Components	E4E Headlamp - Left High Beam
E4F	Headlamp - Right High Beam	—	At the right front of the vehicle	Front of Vehicle Components	E4F Headlamp - Right High Beam
E4G	Headlamp - Left Low Beam	—	At the left front of the vehicle	Front of Vehicle Components	E4G Headlamp - Left Low Beam
E4H	Headlamp - Right Low Beam	—	At the right front of the vehicle	Front of Vehicle Components	E4H Headlamp - Right Low Beam
E4N	Park/Turn Signal Lamp - Left	—	In the left front corner of the vehicle	Front of Vehicle Components	E4N Park/Turn Signal Lamp - Left
E4P	Park/Turn Signal Lamp - Right	—	In the right front corner of the vehicle	Front of Vehicle Components	E4P Park/Turn Signal Lamp - Right
E5A	Backup Lamp - Left	—	Attached to the left tail lamp assembly	Rear of Vehicle Components - Passenger/Cargo	E5A Backup Lamp - Left
E5B	Backup Lamp - Right	—	Attached to the right tail lamp assembly	Rear of Vehicle Components - Passenger/Cargo	E5B Backup Lamp - Right
E5S	Tail/Stop and Turn Signal Lamp - Left	Passenger/ Cargo	Attached to the left tail lamp assembly, upper bulb	Rear of Vehicle Components - Passenger/Cargo	E5S Tail/Stop and Turn Signal Lamp - Left
E5T	Tail/Stop and Turn Signal Lamp - Right	Passenger/ Cargo	Attached to the right tail lamp assembly, upper bulb	Rear of Vehicle Components - Passenger/Cargo	E5T Tail/Stop and Turn Signal Lamp - Right
E6	Center High Mounted Stop Lamp	Passenger/ Cargo	At the top rear center of the vehicle	Rear of Vehicle Components - Passenger/Cargo	E6 Center High Mounted Stop Lamp
E7	License Plate Lamp	Passenger/ Cargo	Attached to the outer right cargo door, above the license plate mount	Rear of Vehicle Components - Passenger/Cargo	E7 License Plate Lamp
E18L	Rear Defogger Grid - Left	C49	Attached to the left cargo door window	Rear Door Components - Passenger/Cargo	• E18L Rear Defogger Grid - Left X1 (C49) • E18L Rear Defogger Grid - Left X2 (C49)

Code	Name	Option	Location	Locator View	Connector End View
E18R	Rear Defogger Grid - Right	C49	Attached to the right cargo door window	Rear Door Components - Passenger/Cargo	• E18R Rear Defogger Grid - Right X1 (C49) • E18R Rear Defogger Grid - Right X2 (C49)
E31L	Sunshade Mirror Lamp - Left	DH6	On the upper left of the headliner, inside the Sunshade — Left	Headliner Components - Front	—
E31R	Sunshade Mirror Lamp - Right	DH6	On the upper right of the headliner, in the Sunshade — Right	Headliner Components - Front	—
E36AC	Dome Lamp - Left Roof Rail	Cargo	In the rear of the roof panel	—	E36AC Dome Lamp - Left Roof Rail - Cargo
E36AD	Dome Lamp - Right Roof Rail	Cargo	In the rear of the roof panel	—	E36AD Dome Lamp - Right Roof Rail - Cargo
E36AH	Dome Lamp	Cargo	In the rear of the roof panel	—	E36AH Dome Lamp - Cargo
E37F	Dome/Reading Lamps - Front	Passenger	In the front of the roof panel	Headliner Components - Front	E37F Dome/Reading Lamps - Front - Passenger
E37M	Dome/Reading Lamps - Middle	Passenger	In the center of the roof panel	Headliner Components - Rear	E37M Dome/Reading Lamps - Middle - Passenger
E37R	Dome/Reading Lamps - Rear	Passenger	In the rear of the roof panel	Headliner Components - Rear	E37R Dome/Reading Lamps - Rear - Passenger
F101	Passenger Instrument Panel Air Bag	—	Right side of the instrument panel	Instrument Panel Components - 2 of 2	F101 Passenger Instrument Panel Air Bag
F105LF	Roof Rail Air Bag - Left Front	ASF	Behind the left side of the headliner trim	Passenger Compartment Components	F105LF Roof Rail Air Bag - Left Front (ASF)
F105RF	Roof Rail Air Bag - Right Front	ASF	Behind the right side of the headliner trim	Passenger Compartment Components	F105RF Roof Rail Air Bag - Right Front (ASF)
F105RR	Roof Rail Air Bag - Right Rear	ASF	Behind the right rear side of the headliner trim	Passenger Compartment Components	F105RR Roof Rail Air Bag - Right Rear (ASF)
F106D	Seat Side Air Bag - Driver	AK5	Within the driver seat back, towards the outside	—	F106D Seat Side Air Bag - Driver (AK5)
F106P	Seat Side Air Bag - Passenger	AK5	Within the passenger seat back, towards the outside	—	F106P Seat Side Air Bag - Passenger (AK5)
F107	Steering Wheel Air Bag	—	Attached to the center of the steering wheel	Steering Column Components - 1 of 2	F107 Steering Wheel Air Bag
F109D	Seat Belt Buckle Pretensioner - Driver	—	Part of the seat belt buckle	Driver Seat Components	F109D Seat Belt Buckle Pretensioner - Driver
F109P	Seat Belt Buckle Pretensioner - Passenger	AK5	Part of the seat belt buckle	Passenger Seat Components	F109P Seat Belt Buckle Pretensioner - Passenger (AK5)
G12	Fuel Pump	—	Under the vehicle, internally attached to the middle of the fuel pump assembly	—	—

Code	Name	Option	Location	Locator View	Connector End View
G13	Generator	LV1/L8T/K68/KG4/KW5	Attached to the right front of the engine	• Front of the Engine Components (LV1) • Left Side of the Engine Components (L8T)	• G13 Generator X1 (L8T) • G13 Generator X1 (LV1) • G13 Generator X2 (K68) • G13 Generator X2 (KG4) • G13 Generator X2 (KW5)
G18	High Pressure Fuel Pump	—	In the engine compartment, at the top rear of the engine, between the cylinder heads	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	G18 High Pressure Fuel Pump
G24	Windshield Washer Pump	—	Attached to the windshield washer fluid reservoir in the right front of the engine compartment	—	G24 Windshield Washer Pump
K9	Body Control Module	—	Lower right side of the instrument panel behind the knee bolster	Instrument Panel Components - 2 of 2	• K9 Body Control Module X1 • K9 Body Control Module X2 • K9 Body Control Module X3 • K9 Body Control Module X4 • K9 Body Control Module X5 • K9 Body Control Module X6 • K9 Body Control Module X7
K17	Electronic Brake Control Module	—	Attached to the left frame rail, near the center of the vehicle	• Frame and Underbody Components (- NE7) • Frame and Underbody Components (NE7)	K17 Electronic Brake Control Module
K18	Compass Module	U80	In the front of the headliner	Headliner Components - Front	K18 Compass Module (U80)
K20	Engine Control Module	LV1/L8T	At the left front side of the engine compartment, near the underhood fuse block on the inner left front fender	Engine Compartment Components - 1 of 3	• K20 Engine Control Module X1 (L8T) • K20 Engine Control Module X1 (LV1) • K20 Engine Control Module X2 (L8T) • K20 Engine Control Module X2 (LV1) • K20 Engine Control Module X3 (L8T) • K20 Engine Control Module X3 (LV1)
K33A	HVAC Control Module - Auxiliary	—	In the front of the headliner	Headliner Components - Front	K33A HVAC Control Module - Auxiliary

Code	Name	Option	Location	Locator View	Connector End View
K36	Inflatable Restraint Sensing and Diagnostic Module	—	Below the driver seat under the carpet on the floor board	Passenger Compartment Components	• K36 Inflatable Restraint Sensing and Diagnostic Module X1 • K36 Inflatable Restraint Sensing and Diagnostic Module X2
K64	Content Theft Deterrent Control Module	—	In the steering column around the ignition key cylinder housing	Steering Column Components - 1 of 2	K64 Content Theft Deterrent Control Module
K71	Transmission Control Module	L8T/LV1	On the Right side of the engine compartment	Engine Compartment Components - 1 of 3	• K71 Transmission Control Module (L8T) • K71 Transmission Control Module (LV1)
K73	Telematics Communication Interface Control Module	—	In the passenger compartment, mounted on a bracket under driver knee bolster panel	Instrument Panel Components - 2 of 2	• K73 Telematics Communication Interface Control Module X1 • K73 Telematics Communication Interface Control Module X2
K77	Remote Control Door Lock Receiver	—	Attached to the upper left side of the instrument panel carrier, above the instrument panel cluster (IPC)	Instrument Panel Components - 2 of 2	K77 Remote Control Door Lock Receiver
K111	Fuel Pump Driver Control Module	—	Under the vehicle, attached to the left frame rail, appriximately midpoint of vehicle	• Frame and Underbody Components (- NE7) • Frame and Underbody Components (NE7)	K111 Fuel Pump Driver Control Module
K182	Parking Assist Control Module	UD7	In the passenger compartment, mounted within the instrument panel on the right side if the steering column	Instrument Panel Components - 2 of 2	• K182 Parking Assist Control Module X1 (UD7) • K182 Parking Assist Control Module X2 (UD7)
M6	Air Temperature Door Actuator	—	Lower right side of the instrument panel, attached to the HVAC module	HVAC Case Components	M6 Air Temperature Door Actuator
M6B	Air Temperature Door Actuator - Auxiliary	—	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	• Auxiliary HVAC Components (C36 / C69) • Auxiliary HVAC Components (C36 / C69)	M6B Air Temperature Door Actuator - Auxiliary
M7	Transmission Shift Lock Control Solenoid Actuator	—	Attached to the right side of the steering column	Steering Column Components - 1 of 2	M7 Transmission Shift Lock Control Solenoid Actuator
M8	Blower Motor	—	Right rear of the engine compartment, attached to the evaporator case	—	M8 Blower Motor
M8B	Blower Motor - Auxiliary	—	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	—	M8B Blower Motor - Auxiliary

Code	Name	Option	Location	Locator View	Connector End View
M13	Door Latch Assembly - Rear Cargo	Passenger/ Cargo	Attached to the right cargo door latch, in the right cargo door	Rear Door Components - Passenger/Cargo	• M13 Door Latch Assembly - Rear Cargo X1 • M13 Door Latch Assembly - Rear Cargo X2
M14RR	Door Lock Actuator - Right Rear	E24/YA2	Attached to the right rear door latch, in the right rear door	• Right Side Hinged Door Components (E24) • Right Side Sliding Door Components (YA2)	• M14RR Door Lock Actuator - Right Rear (E24) • M14RR Door Lock Actuator - Right Rear (YA2)
M37B	Mode Door Actuator - Auxiliary	—	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Auxiliary HVAC Components (C36 / C69)	M37B Mode Door Actuator - Auxiliary
M49D	Seat Motor Assembly - Driver	AG1	Below the left front seat, attached to the seat frame	Driver Seat Components	M49D Seat Motor Assembly - Driver (AG1)
M49P	Seat Motor Assembly - Passenger	AG2	Below the right front seat, attached to the seat frame	Passenger Seat Components	M49P Seat Motor Assembly - Passenger (AG2)
M64	Starter Motor	L8T/LV1	Attached to the lower right rear of the engine	—	• M64 Starter Motor X1 (L8T) • M64 Starter Motor X1 (LV1) • M64 Starter Motor X2
M74D	Window Motor - Driver	—	Attached to the interior of the left front door	Driver Door Components	M74D Window Motor - Driver
M74P	Window Motor - Passenger	—	Attached to the interior of the right front door	Front Passenger Door Components	M74P Window Motor - Passenger
M75	Windshield Wiper Motor	—	In the left side of the cowl, near the engine compartment	—	M75 Windshield Wiper Motor
P13	Horn Assembly	—	In the left front engine compartment behind the left headlamp	Engine Compartment Components - 1 of 3	P13 Horn Assembly
P16	Instrument Cluster	—	Attached to the left side of the instrument panel	Instrument Panel Components - 1 of 2	P16 Instrument Cluster
P19AG	Speaker - Left Front Door	—	Attached to the left front door	Driver Door Components	P19AG Speaker - Left Front Door
P19AH	Speaker - Right Front Door	—	Attached to the right front door	Front Passenger Door Components	P19AH Speaker - Right Front Door
P19F	Speaker - Left Rear Cargo Door	—	Attached to the left cargo door	Rear Door Components - Passenger/Cargo	P19F Speaker - Left Rear Cargo Door
P19LR	Speaker - Left Rear Roof	Cargo/ Passenger	In the left rear headliner of the vehicle	Rear Door Components - Passenger/Cargo	P19LR Speaker - Left Rear Roof
P19RR	Speaker - Right Rear Roof	Cargo/ Passenger	In the right rear upper headliner of the vehicle	Rear Door Components - Passenger/Cargo	P19RR Speaker - Right Rear Roof
P19T	Speaker - Right Rear Cargo Door	—	Attached to the right cargo door	Rear Door Components - Passenger/Cargo	P19T Speaker - Right Rear Cargo Door

Code	Name	Option	Location	Locator View	Connector End View
P34D	Side Object Detection Indicator - Driver	—	Internal to the outside rearview mirror - driver	—	—
P34P	Side Object Detection Indicator - Passenger	—	Internal to the outside rearview mirror - passenger	—	—
P43	Collision Alert Indicators	—	Within the instrument cluster	Instrument Panel Components - 1 of 2	P43 Collision Alert Indicators
Q2	A/C Compressor Clutch	—	On the front of the A/C compressor lower right front of engine	• Front of the Engine Components (LV1) • Left Side of the Engine Components (L8T)	Q2 A/C Compressor Clutch
Q6	Camshaft Position Actuator Solenoid Valve	—	Front of the engine behind the center of the water pump	—	Q6 Camshaft Position Actuator Solenoid Valve
Q12	Evaporative Emission Purge Solenoid Valve	—	On the top of the engine, rear of the throttle body	• Front of the Engine Components (LV1) • Right Side of the Engine Components (L8T)	Q12 Evaporative Emission Purge Solenoid Valve
Q13	Evaporative Emission Vent Solenoid Valve	—	Attached to the side of the EVAP canister, front of the fuel tank	• Frame and Underbody Components (- NE7) • Frame and Underbody Components (NE7)	Q13 Evaporative Emission Vent Solenoid Valve
Q17A	Fuel Injector 1	—	On the left side of the intake manifold, at the #1 cylinder intake port	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	Q17A Fuel Injector 1
Q17B	Fuel Injector 2	—	On the right side of the intake manifold, at the #2 cylinder intake port	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	Q17B Fuel Injector 2
Q17C	Fuel Injector 3	—	On the left side of the intake manifold, at the #3 cylinder intake port	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	Q17C Fuel Injector 3
Q17D	Fuel Injector 4	—	On the right side of the intake manifold, at the #4 cylinder intake port	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	Q17D Fuel Injector 4
Q17E	Fuel Injector 5	—	On the left side of the intake manifold, at the #5 cylinder intake port	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	Q17E Fuel Injector 5
Q17F	Fuel Injector 6	—	On the right side of the intake manifold, at the #6 cylinder intake port	• Top of Engine Components (L8T) • Top of the Engine Components (LV1)	Q17F Fuel Injector 6
Q17G	Fuel Injector 7	L8T	On the left side of the intake manifold, at the #7 cylinder intake port	Top of Engine Components (L8T)	Q17G Fuel Injector 7 (L8T)
Q17H	Fuel Injector 8	L8T	On the right side of the intake manifold, at the #8 cylinder intake port	Top of Engine Components (L8T)	Q17H Fuel Injector 8 (L8T)

Code	Name	Option	Location	Locator View	Connector End View
Q38	Throttle Body	—	Attached to the center front of the intake manifold	• Front of the Engine Components (LV1) • Right Side of the Engine Components (L8T)	Q38 Throttle Body
Q44	Engine Oil Pressure Control Solenoid Valve	L8T	In the engine compartment, at the front of the engine, behind the front cover	Right Side of the Engine Components (L8T)	Q44 Engine Oil Pressure Control Solenoid Valve (L8T)
Q77A	Transmission Control Solenoid Valve 1	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77A Transmission Control Solenoid Valve 1 (MTH / N8X)
Q77B	Transmission Control Solenoid Valve 2	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77B Transmission Control Solenoid Valve 2 (MTH / N8X)
Q77C	Transmission Control Solenoid Valve 3	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77C Transmission Control Solenoid Valve 3 (MTH / N8X)
Q77D	Transmission Control Solenoid Valve 4	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77D Transmission Control Solenoid Valve 4 (MTH / N8X)
Q77E	Transmission Control Solenoid Valve 5	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77E Transmission Control Solenoid Valve 5 (MTH / N8X)
Q77F	Transmission Control Solenoid Valve 6	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77F Transmission Control Solenoid Valve 6 (MTH / N8X)
Q77G	Transmission Control Solenoid Valve 7	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77G Transmission Control Solenoid Valve 7 (MTH / N8X)
Q77H	Transmission Control Solenoid Valve 8	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77H Transmission Control Solenoid Valve 8 (MTH / N8X)
Q77J	Transmission Control Solenoid Valve 9	MTH/N8X	Under the vehicle, internal to the Transmision Assembly	—	Q77J Transmission Control Solenoid Valve 9 (MTH / N8X)
R3	Blower Motor Resistor	—	Right rear of the engine compartment	Engine Compartment Components - 1 of 3	R3 Blower Motor Resistor
R3B	Blower Motor Resistor - Auxiliary	C36/C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	Auxiliary HVAC Components (C36 / C69)	R3B Blower Motor Resistor - Auxiliary (C36 / C69)
R6A	Terminating Resistor - High Speed Bus	—	In the engine compartment	• Engine Compartment Components - 1 of 3 • Engine Harness Routing - Front (LV1)	R6A Terminating Resistor - High Speed Bus
S2	Transmission Manual Shift Switch	—	Mounted on the shift lever, extending from the right side of the steering column	—	S2 Transmission Manual Shift Switch
S13A	Door Lock Switch - Rear Cargo	—	Attached to the right cargo door accessory mount plate	Rear Door Components - Passenger/Cargo	S13A Door Lock Switch - Rear Cargo
S13D	Door Lock Switch - Driver	AU3	Attached to the left front door accessory mount plate	Driver Door Components	S13D Door Lock Switch - Driver (AU3)
S13P	Door Lock Switch - Passenger	AU3	Attached to the right front door accessory mount plate	Front Passenger Door Components	S13P Door Lock Switch - Passenger (AU3)

Code	Name	Option	Location	Locator View	Connector End View
S16	Driver Information Center Switch	—	On the dash, just to the left of P16 Instrument Cluster	Instrument Panel Components - 1 of 2	S16 Driver Information Center Switch
S26	Hazard Warning Switch	—	In the Turn signal switch	Steering Column Components - 1 of 2	—
S30	Headlamp Switch	—	At the left side of the instrument panel	Instrument Panel Components - 1 of 2	S30 Headlamp Switch
S33	Horn Switch	—	Inside the upper steering column, behind the inflatable restraint steering wheel module	Steering Column Components - 1 of 2	S33 Horn Switch
S34	HVAC Controls Switch Assembly	—	In the center of the instrument panel	Instrument Panel Components - 1 of 2	• S34 HVAC Controls Switch Assembly X1 • S34 HVAC Controls Switch Assembly X2 • S34 HVAC Controls Switch Assembly X3 • S34 HVAC Controls Switch Assembly X4
S34F	HVAC Controls Switch Assembly - Auxiliary Front	—	On the front of the overhead console	Headliner Components - Front	• S34F HVAC Controls Switch Assembly - Auxiliary Front (Without Rear HVAC Controls) • S34F HVAC Controls Switch Assembly - Auxiliary Front (With Rear HVAC Controls)
S34R	HVAC Controls Switch Assembly - Auxiliary Rear	C36/C69	In the headliner, near the center of the vehicle	Headliner Components - Rear	S34R HVAC Controls Switch Assembly - Auxiliary Rear (C36 / C69)
S39	Ignition Switch	—	On the right side of the steering column	Steering Column Components - 1 of 2	S39 Ignition Switch
S40	Passenger Air Bag Disable Switch	—	In the center of the instrument panel	Instrument Panel Components - 1 of 2	S40 Passenger Air Bag Disable Switch
S51	Telematics Button Assembly	—	In the center of the instrument panel, just below the radio	Instrument Panel Components - 1 of 2	S51 Telematics Button Assembly
S52	Outside Rearview Mirror Switch	DE5	Attached to the left front door accessory mount plate	Driver Door Components	S52 Outside Rearview Mirror Switch (DE5)
S64D	Seat Adjuster Switch - Driver	AG1	Attached to the front panel of the driver seat	Driver Seat Components	S64D Seat Adjuster Switch - Driver (AG1)
S64P	Seat Adjuster Switch - Passenger	AG2	Attached to the front panel of the front passenger seat	Passenger Seat Components	S64P Seat Adjuster Switch - Passenger (AG2)
S70L	Steering Wheel Controls Switch - Left	K34	On the left steering wheel spoke	—	S70L Steering Wheel Controls Switch - Left (K34)
S70R	Steering Wheel Controls Switch - Right	W1Y	On the right steering wheel spoke	—	S70R Steering Wheel Controls Switch - Right (W1Y)

Code	Name	Option	Location	Locator View	Connector End View
S74	Tow/Haul Mode Switch	—	In the center of the instrument panel	Instrument Panel Components - 1 of 2	S74 Tow/Haul Mode Switch
S75	Traction Control Switch	—	In the center of the instrument panel	—	S75 Traction Control Switch
S78	Turn Signal/ Multifunction Switch	—	On the left side of the steering column	Steering Column Components - 1 of 2	• S78 Turn Signal/ Multifunction Switch X1 • S78 Turn Signal/ Multifunction Switch X2 • S78 Turn Signal/ Multifunction Switch X3
S79D	Window Switch - Driver	A31	Attached to the left front door accessory mount plate	Driver Door Components	S79D Window Switch - Driver (A31)
S79P	Window Switch - Passenger	A31	Attached to the right front door accessory mount plate	Front Passenger Door Components	S79P Window Switch - Passenger (A31)
S85	Auxiliary Blower Motor Switch	C36	In the center of the instrument panel	—	S85 Auxiliary Blower Motor Switch (C36)
S155	Lane Departure Warning Switch	—	Near the center of the instrument panel, below the radio	Instrument Panel Components - 1 of 2	S155 Lane Departure Warning Switch
T1	Accessory DC/AC Power Inverter Module	—	Attached to the Instrument Panel Harness	Instrument Panel Components - 2 of 2	T1 Accessory DC/AC Power Inverter Module
T4M	Radio Antenna	—	Mounted on top of the right front fender, adjacent to the hood	Right Rear of the Engine Compartment Components	T4M Radio Antenna
T4S	Wireless Communication Antenna - Bluetooth	UE1	Internal to K73 Telematics Communication Interface Control Module	—	—
T8A	Ignition Coil 1	—	On the left rocker cover center at cylinder 1	• Right Side of the Engine Components (L8T) • Top of the Engine Components (LV1)	T8A Ignition Coil 1
T8B	Ignition Coil 2	—	On the right rocker cover center at cylinder 2	• Left Side of the Engine Components (L8T) • Top of the Engine Components (LV1)	T8B Ignition Coil 2
T8C	Ignition Coil 3	—	On the left rocker cover center at cylinder 3	• Right Side of the Engine Components (L8T) • Top of the Engine Components (LV1)	T8C Ignition Coil 3
T8D	Ignition Coil 4	—	On the right rocker cover center at cylinder 4	• Left Side of the Engine Components (L8T) • Top of the Engine Components (LV1)	T8D Ignition Coil 4
T8E	Ignition Coil 5	—	On the left rocker cover center at cylinder 5	• Right Side of the Engine Components (L8T) • Top of the Engine Components (LV1)	T8E Ignition Coil 5

Code	Name	Option	Location	Locator View	Connector End View
T8F	Ignition Coil 6	—	On the right rocker cover center at cylinder 6	• Left Side of the Engine Components (L8T) • Top of the Engine Components (LV1)	T8F Ignition Coil 6
T8G	Ignition Coil 7	L8T	On the left rocker cover rear at cylinder 7	Right Side of the Engine Components (L8T)	T8G Ignition Coil 7 (L8T)
T8H	Ignition Coil 8	L8T	On the right rocker cover rear at cylinder 8	Left Side of the Engine Components (L8T)	T8H Ignition Coil 8 (L8T)
T12	Automatic Transmission Assembly	L8T	Under the vehicle attached to the rear of the engine	Left Side of the Engine Components (L8T)	—
W8	Blunt Cut - Trailer Provision	NE7	Behind the instrument panel, near the steering column	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Instrument Panel Harness Routing - Driver Side	—
W12	Blunt Cut - Emergency Vehicle Provision	YF1	Near the instrument panel	—	—
W22	Blunt Cut - Rear Speaker Provision	Cutaway + YF1	Near the instrument panel	Body Harness Routing - Left Front Passenger Compartment - Cutaway	—
W25	Blunt Cut - Configurable Provision	9L7	Near the instrument panel	—	—
X50A	Fuse Block - Underhood	—	In the engine compartment, attached to the left front fender	Engine Compartment Components - 1 of 3	**Electrical Center Identification Views**
X50B	Fuse Block - Underhood Auxiliary	—	In the engine compartment	Engine Compartment Components (9L7)	**Electrical Center Identification Views**
X52A	Fuse Block - Passenger Compartment	—	Below the driver seat	Passenger Compartment Components	**Electrical Center Identification Views**
X55U	Fuse Holder - Starter	—	In the engine compartment, passenger side, near the battery	—	**Electrical Center Identification Views**
X80A	Accessory Power Receptacle - Center Console 1	—	In the center of the instrument panel	Instrument Panel Components - 1 of 2	X80A Accessory Power Receptacle - Center Console 1
X80B	Accessory Power Receptacle - Center Console 2	—	In the right center of the instrument panel	Instrument Panel Components - 1 of 2	X80B Accessory Power Receptacle - Center Console 2
X81	Accessory Power Receptacle - 110V AC	KI4	Within the passenger compartment	Instrument Panel Components - 1 of 2	• X81 Accessory Power Receptacle - 110V AC X1 (KI4) • X81 Accessory Power Receptacle - 110V AC X2 (KI4)

Code	Name	Option	Location	Locator View	Connector End View
X84	Data Link Connector	—	Left lower side of the instrument panel, near the park brake pedal assembly	• Instrument Panel Components - 1 of 2 • Instrument Panel Components - 1 of 2	X84 Data Link Connector
X85	Steering Wheel Air Bag Coil	—	Inside the upper steering column	—	• X85 Steering Wheel Air Bag Coil X1 • X85 Steering Wheel Air Bag Coil X2 • X85 Steering Wheel Air Bag Coil X3
X87RB	Sliding Door Jamb Contact Plate - Right Body	AU3 + E24/YA2	Attached to the right B-pillar	• Passenger Compartment Components • Right Side Hinged Door Components (E24) • Right Side Sliding Door Components (YA2)	• X87RB Sliding Door Jamb Contact Plate - Right Body (Body) • X87RB Sliding Door Jamb Contact Plate - Right Body (Door)
X88	Trailer Connector	UY7	Below the rear bumper, near the center	Rear of Vehicle Components - Passenger/Cargo	X88 Trailer Connector (UY7)
X100	Instrument Panel Wiring Harness to Engine Wiring Harness	—	Left rear of the engine compartment near the underhood fuse block and the horn	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1) • Instrument Panel Harness Routing - Engine Compartment	X100 Instrument Panel Wiring Harness to Engine Wiring Harness
X101	Engine Wiring Harness to Chassis Wiring Harness	—	Left rear of the engine compartment behind the underhood fuse block	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7) • Chassis Harness Routing - Underbody - Passenger/Cargo with LWB • Chassis Harness Routing - Underbody - Passenger/Cargo with SWB • Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	X101 Engine Wiring Harness to Chassis Wiring Harness

Code	Name	Option	Location	Locator View	Connector End View
X102	Chassis Wiring Harness to Fuel Tank Wiring Harness	—	Under the vehicle, near the fuel tank	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7) • Chassis Harness Routing - Underbody - Passenger/Cargo with LWB • Chassis Harness Routing - Underbody - Passenger/Cargo with SWB • Engine Harness Routing - Front (LV1)	X102 Chassis Wiring Harness to Fuel Tank Wiring Harness
X103	Engine Wiring Harness to Starter Motor Jumper Wiring Harness	—	In the engine compartment, right rear of engine block, near the starter	• Engine Harness Routing - Rear (L8T) • Engine Harness Routing - Rear (LV1)	X103 Engine Wiring Harness to Starter Motor Jumper Wiring Harness
X104	Instrument Panel Wiring Harness to Front Seat Wiring Harness	—	Instrument Panel wiring harness to Front Seat Wiring Harness, bottom left side of the radiator support	Instrument Panel Harness Routing - Engine Compartment	X104 Instrument Panel Wiring Harness to Front Seat Wiring Harness
X130	Engine Wiring Harness to Camshaft Position Sensor Wire	—	In the engine compartment, on the left rear side of engine block	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	X130 Engine Wiring Harness to Camshaft Position Sensor Wire
X135	Camshaft Position Sensor Wire to Oil Pump Flow Control Solenoid Valve Wire	L8T	In the engine compartment, on the left rear side of engine block	Engine Harness Routing - Front (L8T)	X135 Camshaft Position Sensor Wire to Oil Pump Flow Control Solenoid Valve Wire (L8T)
X141	Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness	UJ1	Instrument panel wiring harness to the brake fluid alarm switch jumper wiring harness, left rear of the engine compartment near the cowl	• Brake Booster Fluid Alarm Switches (UJ1) • Instrument Panel Harness Routing - Engine Compartment	X141 Instrument Panel Wiring Harness to Brake Fluid Level Indicator Wiring Harness (UJ1)
X150	Instrument Panel Wiring Harness to Forward Lamp Wiring Harness	—	Instrument panel wiring harness to the forward lamp wiring harness, near the upper radiator hose at the radiator entry point	Forward Lamp Harness Routing	X150 Instrument Panel Wiring Harness to Forward Lamp Wiring Harness
X155	Engine Wiring Harness to Engine Coolant Temperature Sensor Harness	L8T	Engine wiring harness to Engine Oil Pressure Sensor Jumper wiring harness, in the engine compartment, left front of the engine, near the power steering pump	Engine Harness Routing - Front (L8T)	X155 Engine Wiring Harness to Engine Coolant Temperature Sensor Harness (L8T)

Code	Name	Option	Location	Locator View	Connector End View
X160	Engine Wiring Harness to Fuel Injector Wiring Harness	LV1/L8T	In the engine compartment, rear of the engine near the top center	• Engine Harness Routing - Rear (L8T) • Engine Harness Routing - Rear (LV1) • Fuel Injector Harness Routing (LV1)	• X160 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) • X160 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)
X161	Engine Wiring Harness to Fuel Injector Wiring Harness	LV1/L8T	In the engine compartment, rear of the engine near the top right	• Engine Harness Routing - Rear (L8T) • Engine Harness Routing - Rear (LV1) • Fuel Injector Harness Routing (LV1)	• X161 Engine Wiring Harness to Fuel Injector Wiring Harness (L8T) • X161 Engine Wiring Harness to Fuel Injector Wiring Harness (LV1)
X175	Engine Wiring Harness to Automatic Transmission Wiring Harness	LV1/L8T	Engine wiring harness to the transmission jumper wiring harness	Engine Harness Routing - Rear (LV1)	• X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (L8T) • X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (LV1)
X176	Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness	MTH/N8X	Internal to the transmission	—	X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (MTH / N8X)
X178	Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness	MTH/N8X	Transmission wiring harness to the transmission speed sensor wiring harness	—	X178 Automatic Transmission Wiring Harness to Automatic Transmission Output Speed Sensor Wiring Harness (MTH / N8X)
X185	Instrument Panel Wiring Harness to Chassis Wiring Harness	—	In the engine compartment, near the X50A fuse block - underhood	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7) • Chassis Harness Routing - Underbody - Passenger/Cargo with LWB • Chassis Harness Routing - Underbody - Passenger/Cargo with SWB • Instrument Panel Harness Routing - Engine Compartment	X185 Instrument Panel Wiring Harness to Chassis Wiring Harness

Code	Name	Option	Location	Locator View	Connector End View
X190	Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness	9L7	In the engine compartment	Upfitter Provision Harness Routing - Engine Compartment (9L7)	X190 Accessory Wiring Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)
X200	Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness	—	Steering column wiring harness to the instrument panel wiring harness, at the base of the steering column	• Instrument Panel Harness Routing - Rear of Instrument Panel • Steering Column Harness Routing	X200 Steering Wheel Air Bag Coil Jumper Wiring Harness to Instrument Panel Wiring Harness
X202	Instrument Panel Wiring Harness to Engine Wiring Harness	—	Instrument panel wiring harness to engine wiring harness, about 8.8 inches (225 mm) from I/P underhood break out after pass through grommet	• Engine Harness Routing - Front (L8T) • Instrument Panel Harness Routing - Engine Compart-ment	X202 Instrument Panel Wiring Harness to Engine Wiring Harness
X204	Body Wiring Harness to Roof Console Wiring Harness	—	Body wiring harness to headliner wiring harness,	• Body Harness Routing - Right Front Passenger Compartment • Roof Harness Routing - Front	X204 Body Wiring Harness to Roof Console Wiring Harness
X205	Roof Console Wiring Harness to Body Wiring Harness	—	Front headliner wiring harness to the body wiring harness, behind the A-pillar	• Body Harness Routing - Right Front Passenger Compartment • Roof Harness Routing - Front	X205 Roof Console Wiring Harness to Body Wiring Harness
X206	Instrument Panel Wiring Harness to Instrument Panel Wiring Harness	—	Instrument Panel wiring harness to Instrument Panel wiring harness, left side of the instrument panel near the headlamp switch	Instrument Panel Harness Routing - Rear of Instrument Panel	X206 Instrument Panel Wiring Harness to Instrument Panel Wiring Harness
X220	Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness	—	Instrument panel wiring harness to the parking brake jumper wiring harness, left side of the instrument panel, center of the parking brake pedal assembly	Instrument Panel Harness Routing - Driver Side	X220 Instrument Panel Wiring Harness to Park Brake Switch Jumper Wiring Harness
X221	Instrument Panel Wiring Harness to Antenna Wiring Harness	—	Instrument Panel Wiring Harness to Antenna Wiring Harness, behind the passenger kick panel	Instrument Panel Harness Routing - Rear of Instrument Panel	X221 Instrument Panel Wiring Harness to Antenna Wiring Harness
X225	Accelerator Control Wiring Harness to Instrument Panel Wiring Harness	—	Accelerator Pedal Position (APP) Jumper wiring harness to Instrument Panel wiring harness, located between Accelerator Pedal Position (APP) sensor and Instrument Panel wiring harness	Instrument Panel Harness Routing - Rear of Instrument Panel	X225 Accelerator Control Wiring Harness to Instrument Panel Wiring Harness

Code	Name	Option	Location	Locator View	Connector End View
X291	Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness	9L7	In the engine compartment	Upfitter Provision Harness Routing - Engine Compartment (9L7)	X291 Accessory Power Fuse Block Rear Wiring Harness Extension Harness to Accessory Power Fuse Block Rear Wiring Harness Extension Harness (9L7)
X306	Body Wiring Harness to Seat Wiring Harness - Passenger	—	Body wiring harness to the front passenger seat wiring harness, right side of the passenger compartment below the passenger seat	• Body Harness Routing - Right Front Passenger Compartment • Driver Seat Harness Routing and Front Passenger Seat Harness Routing • Passenger Seat Components	X306 Body Wiring Harness to Seat Wiring Harness - Passenger
X307	Body Wiring Harness to Seat Wiring Harness - Driver	—	Body wiring harness to the driver seat wiring harness, left side of the passenger compartment below the driver seat	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Passenger • Driver Seat Components • Driver Seat Harness Routing and Front Passenger Seat Harness Routing	X307 Body Wiring Harness to Seat Wiring Harness - Driver
X318	Instrument Panel Wiring Harness to Body Wiring Harness	—	Instrument panel wiring harness to the body wiring harness, behind the left kick panel	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger • Instrument Panel Harness Routing - Driver Side	X318 Instrument Panel Wiring Harness to Body Wiring Harness

Code	Name	Option	Location	Locator View	Connector End View
X319	Auxiliary Heater Front Wiring Harness to Body Wiring Harness	ENC/C69/C36	Rear heater switch wiring harness to the body wiring harness, behind the left kick panel	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger	X319 Auxiliary Heater Front Wiring Harness to Body Wiring Harness (ENC / C69 / C36)
X323	Airbag Wiring Harness to Body Wiring Harness	ASF	At the base of the left C-pillar	Body Harness Routing - Left Front Passenger Compartment - Passenger	X323 Airbag Wiring Harness to Body Wiring Harness (ASF)
X324	Airbag Wiring Harness to Body Wiring Harness	ASF	At the base of the right C-pillar	Body Harness Routing - Right Rear Passenger Compartment - Passenger	X324 Airbag Wiring Harness to Body Wiring Harness (ASF)
X329	Instrument Panel Wiring Harness to Body Wiring Harness	UVC	Instrument panel wiring harness to the body wiring harness, in the passenger compartment under the driver seat	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger • Instrument Panel Harness Routing - Driver Side	X329 Instrument Panel Wiring Harness to Body Wiring Harness (UVC)
X330	Instrument Panel Wiring Harness to Body Wiring Harness	—	Instrument panel wiring harness to the body wiring harness, under the driver seat	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger • Instrument Panel Harness Routing - Driver Side	X330 Instrument Panel Wiring Harness to Body Wiring Harness

Code	Name	Option	Location	Locator View	Connector End View
X331	Instrument Panel Wiring Harness to Body Wiring Harness	—	Instrument panel wiring harness to the body wiring harness, under the driver seat	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger • Instrument Panel Harness Routing - Driver Side	X331 Instrument Panel Wiring Harness to Body Wiring Harness
X400	Rear Door Door Wiring Harness to Body Wiring Harness	Passenger/ Cargo	Right cargo door wiring harness to the body wiring harness, right rear of the passenger compartment center of the right D-pillar	• Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger • Door Harness Routing - Passenger Rear - Passenger/Cargo	X400 Rear Door Door Wiring Harness to Body Wiring Harness
X403	Rear Door Door Wiring Harness to Body Wiring Harness	UVC	Rear cargo door wiring harness to body wiring harness,	• Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger • Body Harness Routing - Right Rear Passenger Compartment - Passenger • Door Harness Routing - Passenger Rear - Passenger/Cargo	• X403 Rear Door Door Wiring Harness to Body Wiring Harness (- Cutaway) • X403 Rear Door Door Wiring Harness to Body Wiring Harness (Cutaway)
X405	Chassis Rear Wiring Harness Extension Harness to Chassis Rear Wiring Harness Extension Harness - Cutaway	Cutaway	Cutaway rear lighting connector to the chassis wiring harness, left rear frame rail	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7)	X405 Chassis Wiring Harness to Chassis Wiring Harness - Cutaway

Code	Name	Option	Location	Locator View	Connector End View
X407	Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness	C36/C69	Rear HVAC wiring harness to the body wiring harness, left rear of the passenger compartment upper back side of the auxiliary HVAC module at the D-pillar	• Auxiliary HVAC Harness Routing - Left Rear Passenger Compartment (C36 / C69) • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger	X407 Auxiliary Heater and Air Conditioning Wiring Harness to Body Wiring Harness (C36 / C69)
X408	Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness	UD7/UFT	Rear bumper wiring harness to chassis wiring harness,	• Chassis Harness Routing - Underbody - Passenger/ Cargo with LWB • Chassis Harness Routing - Underbody - Passenger/ Cargo with SWB • Rear Bumper Harness Routing	X408 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (UD7 / UFT)
X410	Tail Lamp Wiring Harness to Body Wiring Harness	Passenger/ Cargo	Left Tail Lamp Assembly wiring harness to Body wiring harness, left rear of the passenger compartment at the D-pillar	• Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger	X410 Tail Lamp Wiring Harness to Body Wiring Harness
X411	Rear Door Door Wiring Harness - Left to Body Wiring Harness	Passenger/ Cargo	Left cargo door wiring harness to the body wiring harness, left rear of the passenger compartment center of the left D-pillar	• Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger • Door Harness Routing - Driver Rear - Passenger/ Cargo	X411 Rear Door Door Wiring Harness - Left to Body Wiring Harness

Code	Name	Option	Location	Locator View	Connector End View
X412	Rear Door Door Wiring Harness to Body Wiring Harness	Passenger/ Cargo	Right cargo door wiring harness to the body wiring harness, right rear of the passenger compartment center of the right D-pillar	• Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger • Door Harness Routing - Passenger Rear - Passenger/Cargo	X412 Rear Door Door Wiring Harness to Body Wiring Harness
X415	Radio Rear Speaker Wiring Harness to Body Wiring Harness	Passenger/ Cargo	Rear overhead speakers jumper wiring harness to the body wiring harness, rear of the passenger compartment center of the rear roof rail	• Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger	X415 Radio Rear Speaker Wiring Harness to Body Wiring Harness
X419	Front Side Door Door Wiring Harness - Driver to Body Wiring Harness	Passenger/ Cargo	CHMSL wiring harness to the body wiring harness, rear of the passenger compartment center of the rear roof rail	• Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger	X419 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
X420	Tail Lamp Wiring Harness to Body Wiring Harness	Passenger/ Cargo	Right Tail Lamp Assembly wiring harness to Body wiring harness, right rear of the passenger compartment at the D-pillar	• Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger	X420 Tail Lamp Wiring Harness to Body Wiring Harness
X421	Roof Console Wiring Harness to Body Wiring Harness	—	Body wiring harness to rear headliner wiring harness	• Body Harness Routing - Right Rear Passenger Compartment - Passenger • Roof Harness Routing - Rear	X421 Roof Console Wiring Harness to Body Wiring Harness
X450	Trailer Jumper Wiring Harness to Chassis Wiring Harness	NE7	Trailer Jumper Wiring Harness to Chassis Wiring Harness, at the rear of the vehicle	—	X450 Trailer Jumper Wiring Harness to Chassis Wiring Harness (NE7)
X460	Chassis Wiring Harness to Chassis Wiring Harness	—	Trailer Provision to Chassis wiring harness, in rear near Trailer wiring harness	Chassis Harness Routing - Underbody - Cutaway (NE7)	X460 Chassis Wiring Harness to Chassis Wiring Harness

Code	Name	Option	Location	Locator View	Connector End View
X500	Front Side Door Door Wiring Harness - Driver to Body Wiring Harness	—	Driver door wiring harness to the body wiring harness, behind the left kick panel	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger • Door Harness Routing - Driver Door	X500 Front Side Door Door Wiring Harness - Driver to Body Wiring Harness
X501	Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver	ASF	Driver side impact sensor wiring harness to the driver door wiring harness, in the driver door behind the trim panel	Door Harness Routing - Driver Door	X501 Airbag Wiring Harness to Front Side Door Door Wiring Harness - Driver (ASF)
X600	Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness	—	Passenger door wiring harness to the body wiring harness, behind the right kick panel	• Body Harness Routing - Right Front Passenger Compartment • Door Harness Routing - Passenger Door	X600 Front Side Door Door Wiring Harness - Passenger to Body Wiring Harness
X601	Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger	ASF	Passenger side impact sensor wiring harness to the passenger door wiring harness, in the passenger door behind the trim panel	Door Harness Routing - Passenger Door	X601 Side Impact Sensor - Right Front Jumper Wiring Harness to Front Side Door Door Wiring Harness - Passenger (ASF)
X901	Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left	C49	Rear window defogger jumper wiring harness to the left cargo door wiring harness, in the left cargo door	Door Harness Routing - Driver Rear - Passenger/Cargo	X901 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness - Left (C49)
X902	Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness	C49	Rear window defogger jumper wiring harness to the right cargo door wiring harness, in the right cargo door	Door Harness Routing - Passenger Rear - Passenger/Cargo	X902 Rear Window Defogger Wiring Harness to Rear Door Door Wiring Harness (C49)
G100	Forward Lamp Wiring Harness	—	Left front of the engine compartment, attached to the front of the left fender	G100 and G101	—
G101	Forward Lamp Wiring Harness	—	Right front of the engine compartment, attached near the front of the right fender	G100 and G101	—
G102	Engine Wiring Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	• G102 and G103 (LV1) • G102 and G103 (L8T)	—
G103	Engine Wiring Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	• G102 and G103 (LV1) • G102 and G103 (L8T)	—

Code	Name	Option	Location	Locator View	Connector End View
G104	Negative Battery Cable	—	Mounted on the engine, extending towards the battery	• G104 (LV1) • G104 (L8T)	—
G105	Negative Battery Cable	—	Front of the engine compartment, right front of the inner frame rail	G105 and G106	—
G106	Negative Battery Cable	—	Front of the engine compartment, right front fender	G105 and G106	—
G107	Engine Wiring Harness	LV1	Rear of the engine compartment, right rear of the engine on the right cylinder head	G107 and G108	—
G108	Engine Wiring Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	G107 and G108	—
G109	Accessory Wiring Harness	9L7	In the engine compartment, passenger side, attached to the inner fender	G109 (9L7)	—
G300	Chassis Wiring Harness	—	Left side outer frame, rear of the front tire, near the body mount	G300 and G404 - Passenger/Cargo	—
G301	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G302	G301 and G302	—
G302	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G301	G301 and G302	—
G304	Instrument Panel	—	Right front of the passenger compartment, behind the kick panel	G304	—
G305	Auxiliary Battery Negative Cable	TP3	Left center outer frame rail, near the auxiliary battery	G305	—
G347	Body Wiring Harness	—	Left side of the passenger compartment, lower left B-pillar part of JX347	—	—
G348	Body Wiring Harness	—	Right side of the passenger compartment, lower right B-pillar part of JX348	—	—
G401	Body Wiring Harness	Passenger/ Cargo	Right rear of the passenger compartment, upper right D-pillar	G401 and G402 - Passenger/Cargo	—
G402	Body Wiring Harness	Passenger/ Cargo	Left rear of the passenger compartment, center left D-pillar	G401 and G402 - Passenger/Cargo	—
G404	Chassis Wiring Harness	—	In vehicle underbody, near center, on left frame rail	• G300 and G404 - Passenger/Cargo • G404 - Cutaway	—
J100	Forward Lamp Wiring Harness	—	At the left front of the engine compartment, just behind the left front headlamp assembly	Forward Lamp Harness Routing	—
J101	Engine Wiring Harness	—	In the engine wiring harness, on the right side of the engine, approximately 5 cm (2 in) from the MAP sensor breakout	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	—

Code	Name	Option	Location	Locator View	Connector End View
J102	Engine Wiring Harness	—	In the engine wiring harness, on the right side of the engine, approximately 6 cm (2 in) from the MAP sensor breakout	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Rear (LV1)	—
J104	Fuse Block Jumper Wiring Harness	9L7	In the fuse block jumper wiring harness, approximately 84.0 cm (33.07 in) from the fuse block - underhood auxiliary	Upfitter Provision Harness Routing - Engine Compartment (9L7)	—
J105	Fuse Block Jumper Wiring Harness	9L7	In the fuse block jumper wiring harness, approximately 54.0 cm (21.26 in) from the fuse block - underhood auxiliary	Upfitter Provision Harness Routing - Engine Compartment (9L7)	—
J106	Fuse Block Jumper Wiring Harness	9L7	In the fuse block jumper wiring harness, approximately 36.5 cm (14.37 in) from the fuse block - underhood auxiliary	Upfitter Provision Harness Routing - Engine Compartment (9L7)	—
J107	Engine Wiring Harness	—	In the engine wiring harness, approximately 11.5 cm (4.53 in) from the horn assembly breakout	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	—
J108	Engine Wiring Harness	L8T	In the engine wiring harness, approximately 10.5 cm (4.0 in) from the engine control module breakout	Engine Harness Routing - Rear (L8T)	—
J110	Forward Lamp Wiring Harness	—	In the forward lamp wiring harness, Left front of the vehicle, approximately 12 cm (5 in) from the left headlamp connector breakout	Forward Lamp Harness Routing	—
J111	Engine Wiring Harness	L8T	In the engine wiring harness, approximately 5.0 cm (2.0 in) from the brake fluid level switch breakout	Engine Harness Routing - Front (L8T)	—
J112	Engine Wiring Harness	—	In the engine wiring harness, approximately 33.5 cm (13.2 in) from the multifunction intake air sensor breakout	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	—
J115	Engine Wiring Harness	—	In the engine wiring harness, in the right front of the engine compartment, approximately 15 cm (6 in) from the X101 breakout	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	—
J121	Forward Lamp Wiring Harness	—	In the forward lamp wiring harness, near the front center of the vehicle, approximately 48 cm (19 in) from the left headlamp breakout	Forward Lamp Harness Routing	—

Code	Name	Option	Location	Locator View	Connector End View
J122	Forward Lamp Wiring Harness	—	In the forward lamp wiring harness, near the left front of the vehicle, approximately 12 cm (5 in) from the underhood fuse block X4 breakout	Forward Lamp Harness Routing	—
J130	Engine Wiring Harness	—	In the engine wiring harness, approximately 12.5 cm (4.9 in) from the knock sensor 1 breakout	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Rear (LV1)	—
J131	Engine Wiring Harness	—	In the engine wiring harness, approximately 19.5 cm (7.7 in) from the knock sensor 1 breakout	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Rear (LV1)	—
J143	Engine Wiring Harness	—	Adjacent to B52C Heated Oxygen Sensor - Bank 1 Sensor 1 and B52E Heated Oxygen Sensor - Bank 2 Sensor 1	• Engine Harness Routing - Rear (L8T) • Engine Harness Routing - Rear (LV1)	—
J144	Engine Wiring Harness	—	Adjacent to B52D Heated Oxygen Sensor - Bank 1 Sensor 2 and B52F Heated Oxygen Sensor - Bank 2 Sensor 2	• Engine Harness Routing - Rear (L8T) • Engine Harness Routing - Rear (LV1)	—
J170	Engine Wiring Harness	LV1	In the engine wiring harness, approximately 24.5 cm (9.6 in) from ignition coil 5	Engine Harness Routing - Rear (LV1)	—
J171	Engine Wiring Harness	LV1	In the engine wiring harness, approximately 26 cm (10.2 in) from ignition coil 6	Engine Harness Routing - Rear (LV1)	—
J175	Transmission Internal Wiring Harness	—	Within the automatic transmission assembly	—	—
J176	Transmission Internal Wiring Harness	—	Within the automatic transmission assembly	—	—
J177	Transmission Internal Wiring Harness	—	Within the automatic transmission assembly	—	—
J181	Ignition Coil Jumper Wiring Harness	L8T	In the ignition coil jumper wiring harness for bank 1, approximately 5 cm (2.0 in) from the X126 breakout	Engine Harness Routing - Front (L8T)	—
J182	Left Ignition Coil Wiring Harness	—	In the odd ignition/coil module jumper wiring harness, top left of the engine	• Engine Harness Routing - Front (L8T) • Engine Harness Routing - Front (LV1)	—
J183	Right Ignition Coil Wiring Harness	L8T	In the even ignition/coil module jumper wiring harness, top right of the engine	Engine Harness Routing - Rear (L8T)	—

Code	Name	Option	Location	Locator View	Connector End View
J184	Left Ignition Coil Wiring Harness	LV1	In the odd ignition/coil module jumper wiring harness, top left of the engine	Engine Harness Routing - Front (LV1)	—
J185	Right Ignition Coil Wiring Harness	LV1	In the even ignition/coil module jumper wiring harness, top right of the engine	Engine Harness Routing - Front (LV1)	—
J188	Right Ignition Coil Wiring Harness	—	In the even ignition/coil module jumper wiring harness, top right of the engine	• Engine Harness Routing - Front (LV1) • Engine Harness Routing - Rear (L8T)	—
J201	Instrument Panel	UFL	In the instrument panel harness, approximately 2 cm (0.79 in) from the park brake switch breakout	Instrument Panel Harness Routing - Driver Side	—
J202	Steering Column Wiring Harness	—	In the steering column wiring harness, approximately 25 cm (9 in) from the X200 connector	—	—
J203	Steering Column Wiring Harness	—	In the steering column wiring harness, approximately 27 cm (10.5 in) from the X200 connector	—	—
J205	Steering Column Wiring Harness	—	In the steering column wiring harness, approximately 30 cm (12 in) from the X200 connector	—	—
J207	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 70 cm (27 in) from the radio and HVAC control assembly breakout	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J208	Steering Wheel Wiring Harness	K34 + W1Y	In the steering wheel wiring harness, near the X200 connector	—	—
J209	Steering Wheel Wiring Harness	K34 + W1Y	In the steering wheel wiring harness, near the X200 connector	—	—
J210	Steering Wheel Wiring Harness	K34/W1Y	In the steering wheel wiring harness, near the X200 connector	—	—
J211	Instrument Panel	UD7/UFT	In the engine compartment, approximately 30 cm (11.8 in) from the windshield washer pump	Instrument Panel Harness Routing - Engine Compartment	—
J223	Instrument Panel	UVC	Adjacent to K9 Body Control Module	Instrument Panel Harness Routing - Driver Side	—
J241	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 13.5 cm (5.3 in) from the parking assist control module breakout	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J242	Instrument Panel Wiring Harness	—	In the instrument panel wiring harness	—	—

Code	Name	Option	Location	Locator View	Connector End View
J244	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 12 cm (5 in) from the X200 breakout towards the instrument panel cluster connector	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J245	Instrument Panel	DE5	In the instrument panel harness, center of the instrument panel, approximately 30 cm (12 in) from the radio and HVAC control assembly breakout	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J246	Instrument Panel	DE5	In the instrument panel harness, center of the instrument panel, approximately 43.5 cm (17 in) from the radio and HVAC control assembly breakout	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J247	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J248	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 8 cm (3.14 in) from the C200 breakout towards the instrument panel cluster connector	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J249	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 21 cm (8 in) from the G304 breakout	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J250	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 5 cm (2.16 in) from the air temperature actuator connector breakout towards the inflatable restraint instrument panel module connector	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J263	Instrument Panel	TP3	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	Instrument Panel Harness Routing - Rear of Instrument Panel	—
J264	Steering Column Wiring Harness	—	In the steering wheel wiring harness, approximately 20 cm (8 in) from the X200 connector	—	—
J271	Instrument Panel	U2K/UE1	In the instrument panel harness, approximately 7.5 cm (3 in) from the vehicle communication interface module and cigar lighter connectors breakout	Instrument Panel Harness Routing - Rear of Instrument Panel	—

Code	Name	Option	Location	Locator View	Connector End View
J280	Instrument Panel	Cutaway	In the instrument panel harness, approximately 20 cm (7.9 in) from the body fuse block and air bag module connectors breakout	Instrument Panel Harness Routing - Driver Side	—
J307	Front Headliner Wiring Harness	C69	In the front headliner wiring harness, center of the headliner, approximately 15 cm (6 in) from the X205 breakout towards the left vanity mirror lamp connector	Roof Harness Routing - Front	—
J308	Body Wiring Harness	C69	In the body wiring harness, left side of the passenger compartment, approximately 22 cm (9 in) from the breakout for the door jamb switch LR side	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Right Front Passenger Compartment	—
J310	Body Wiring Harness	C69	In the body wiring harness, left side of the passenger compartment, approximately 32 cm (12.79 in) from the breakout for the door jamb switch left rear side	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Right Front Passenger Compartment	—
J311	Body Wiring Harness	C69	In the body wiring harness, left side of the passenger compartment, approximately 5 cm (2 in) from the door jamb switch LR side breakout	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Right Front Passenger Compartment	—
J314	Front Headliner Wiring Harness	—	In the front headliner wiring harness, center of the headliner, approximately 22 cm (8.5 in) from the X205 breakout towards the left vanity mirror lamp connector	Roof Harness Routing - Front	—

Code	Name	Option	Location	Locator View	Connector End View
J315	Chassis Wiring Harness	—	In the chassis wiring harness, left side frame, approximately 31 cm (12 in) from the G300 breakout	• Chassis Harness Routing - Under-body - Cutaway (NE7) • Chassis Harness Routing - Under-body - Cutaway (-NE7) • Chassis Harness Routing - Under-body - Passenger/ Cargo with LWB • Chassis Harness Routing - Under-body - Passenger/ Cargo with SWB	—
J322	Body Wiring Harness	Cargo/ Passenger + AU3	In the body wiring harness, near the front passenger seat, approximately 40 cm (16 in) from the X306 breakout	• Body Harness Routing - Left Front Passenger Com-partment - Cargo • Body Harness Routing - Right Front Passenger Compartment	—
J323	Body Wiring Harness	Cargo/ Passenger + AU3	In the body wiring harness, near the front passenger seat, approximately 20 cm (8 in) from the X306 breakout	• Body Harness Routing - Left Front Passenger Com-partment - Cargo • Body Harness Routing - Right Front Passenger Compartment	—
J330	Rear Headliner Wiring Harness	Passenger	In the rear headliner wiring harness, center of the headliner, approximately 30 cm (12 in) to the courtesy reading lamp rear breakout	Roof Harness Routing - Rear	—
J331	Body Wiring Harness	Passenger	In the body wiring harness, near the front passenger seat, approximately 15 cm (6 in) from the X306 breakout	Body Harness Routing - Right Front Passenger Compartment	—
J332	Front Headliner Wiring Harness	Cutaway/Cargo - TR9	In the front headliner wiring harness, center of the headliner, approximately 11 cm (4 in) from the front right sunshade breakout	—	—
J333	Front Headliner Wiring Harness	DH6	In the front headliner wiring harness, center of the headliner, approximately 20 cm (8 in) from the right sunshade breakout	Roof Harness Routing - Front	—

Code	Name	Option	Location	Locator View	Connector End View
J334	Body Wiring Harness	UVC	Approximately 5 inches rearward of X53A Fuse Block - Rear Body	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Right Front Passenger Compartment	—
J335	Front Headliner Wiring Harness	U80	In the front headliner wiring harness, approximately 21.5 cm (8.5 in) from the right sunshade	Roof Harness Routing - Front	—
J355	Front Headliner Wiring Harness	C69	In the front headliner wiring harness, center of the headliner, approximately 61 cm (24 in) from the X205 breakout towards the left vanity mirror lamp connector	Body Harness Routing - Left Front Passenger Compartment - Cutaway	—
J356	Body Wiring Harness	—	In the body wiring harness, on the left front side of the vehicle, approximately 20 cm (7.87 in) from the underhood fuse block breakout	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Passenger	—
J357	Body Wiring Harness	—	In the body wiring harness, approximately 9.0 cm (3.54 in) from the breakout for X307	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger	—
J359	Body Wiring Harness	U80	In the body wiring harness, approximately 20.0 cm (7.9 in) from the multi-axis acceleration sensor module breakout	Body Harness Routing - Right Front Passenger Compartment	—
J373	Body Wiring Harness	Passenger	At the base of the right C-pillar	—	—
J374	Body Wiring Harness	Cargo	In the body wiring harness, approximately 20 cm (7.9 in) from the dome lamp – left roof rail breakout	Body Harness Routing - Left Rear Passenger Compartment - Cargo	—
J375	Body Wiring Harness	Cargo	In the body wiring harness, approximately 20 cm (7.9 in) from the dome lamp – right roof rail breakout	Body Harness Routing - Left Rear Passenger Compartment - Cargo	—

Code	Name	Option	Location	Locator View	Connector End View
J376	Body Wiring Harness	Cargo/ Passenger	In the body wiring harness, approximately 72.5 cm (28.5 in) from the X410 breakout	Body Harness Routing - Right Rear Passenger Compartment - Passenger	—
J387	Chassis Wiring Harness	Cutaway	In the chassis wiring harness, approximately 6 cm (2.36 in) from the trailer connector breakout	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7)	—
J388	Chassis Wiring Harness	Cutaway	In the chassis wiring harness, approximately 10 cm (3.94 in) from the trailer connector breakout	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7)	—
J401	Body Wiring Harness	C36/C49/C69	In the body wiring harness, in the left rear of the vehicle, approximately 21 cm (8 in) from the X401 breakout	• Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger	—
J402	Chassis Wiring Harness	—	In the chassis wiring harness, left frame, approximately 20 cm (7.87 in) from the G400 breakout towards the EBCM connector	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7) • Chassis Harness Routing - Underbody - Passenger/ Cargo with LWB • Chassis Harness Routing - Underbody - Passenger/ Cargo with SWB	—
J403	Body Wiring Harness	Cargo/ Passenger	In the body wiring harness, left rear of the passenger compartment, approximately 18.5 cm (7 in) from the X402 breakout	• Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger	—

Code	Name	Option	Location	Locator View	Connector End View
J404	Chassis Wiring Harness	—	In the chassis wiring harness, left frame, approximately 10 cm (4 in) from the G400 breakout towards the EBCM connector	• Chassis Harness Routing - Underbody - Cutaway (NE7) • Chassis Harness Routing - Underbody - Cutaway (-NE7) • Chassis Harness Routing - Underbody - Passenger/Cargo with LWB • Chassis Harness Routing - Underbody - Passenger/Cargo with SWB	—
J405	Rear HVAC Wiring Harness	C36/C69	In the rear HVAC wiring harness, left rear of the passenger compartment, approximately 13 cm (5.31 in) from the auxiliary blower motor relay breakout towards X409	Auxiliary HVAC Harness Routing - Left Rear Passenger Compartment (C36 / C69)	—
J407	Rear Headliner Wiring Harness	Passenger	In the rear headliner wiring harness, center of the headliner, approximately 6.5 cm (2.5 in) from X304 towards the rear courtesy/reading lamp connector	Roof Harness Routing - Rear	—
J410	Body Wiring Harness	Cargo/Passenger	In the body wiring harness, in the left rear of the vehicle, approximately 47 cm (18 in) from the X401 breakout	• Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger	—
J411	Rear HVAC Wiring Harness	C69	In the rear HVAC wiring harness, left rear of the passenger compartment, approximately 20 cm (8 in) from the blower motor relay breakout, towards X409	Auxiliary HVAC Harness Routing - Left Rear Passenger Compartment (C36 / C69)	—
J412	Rear HVAC Wiring Harness	C36/C69	In the rear HVAC wiring harness, left rear of the passenger compartment, approximately 7 cm (2.8 in) from the blower motor relay breakout towards X409	Auxiliary HVAC Harness Routing - Left Rear Passenger Compartment (C36 / C69)	—
J413	Rear HVAC Wiring Harness	C36/C69	In the rear HVAC wiring harness, left rear of the passenger compartment, approximately 10 cm (4 in) from the auxiliary blower motor resistor assembly breakout	Auxiliary HVAC Harness Routing - Left Rear Passenger Compartment (C36 / C69)	—
J420	Rear Bumper Wiring Harness	UD7	In the rear bumper wiring harness, approximately 57 cm (22 in) from the right rear middle object alarm sensor towards the left rear corner object alarm sensor	Rear Bumper Harness Routing	—

Code	Name	Option	Location	Locator View	Connector End View
J421	Rear Bumper Wiring Harness	UD7	In the rear bumper wiring harness, approximately 15 cm (6 in) from the left rear corner object alarm sensor towards the right rear middle object alarm sensor	Rear Bumper Harness Routing	—
J425	Parking Aid Jumper Wiring Harness	UFT	At the rear of the vehicle	Rear Bumper Harness Routing	—
J426	Parking Aid Jumper Wiring Harness	UFT	At the rear of the vehicle	Rear Bumper Harness Routing	—
J431	Chassis Wiring Harness	—	In the chassis wiring harness, approximately 15 cm (5.9 in) from the fuel pump driver control module	• Chassis Harness Routing - Under-body - Cutaway (NE7) • Chassis Harness Routing - Under-body - Cutaway (-NE7) • Chassis Harness Routing - Under-body - Passenger/ Cargo with LWB • Chassis Harness Routing - Under-body - Passenger/ Cargo with SWB	—
J432	Chassis Wiring Harness	—	In the chassis wiring harness, approximately 11 cm (4.33 in) from the X102	• Chassis Harness Routing - Under-body - Cutaway (NE7) • Chassis Harness Routing - Under-body - Cutaway (-NE7) • Chassis Harness Routing - Under-body - Passenger/ Cargo with LWB • Chassis Harness Routing - Under-body - Passenger/ Cargo with SWB	—
J450	Body Wiring Harness	—	In the body wiring harness, in the rear of the vehicle, approximately 10 cm (3.93 in) from the X415 breakout	• Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger	—

Code	Name	Option	Location	Locator View	Connector End View
J451	Body Wiring Harness	—	In the body wiring harness, in the rear of the vehicle, approximately 17 cm (6.5 in) from the X415 breakout	• Body Harness Routing - Right Rear Passenger Compartment - Cargo • Body Harness Routing - Right Rear Passenger Compartment - Passenger	—
J452	Body Wiring Harness	—	In the body wiring harness, approximately 17 cm (6.5 in) from the X419 breakout	• Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger	—
J453	Body Wiring Harness	—	In the body wiring harness, in the left rear of the vehicle, approximately 10 cm (4 in) from the X419 breakout	• Body Harness Routing - Left Rear Passenger Compartment - Cargo • Body Harness Routing - Left Rear Passenger Compartment - Passenger	—
J500	Driver Door Wiring Harness	AU3/DE5/A31	In the left front door wiring harness, driver door, approximately 7 cm (3 in) from the left front door speaker breakout	Door Harness Routing - Driver Door	—
J501	Driver Door Wiring Harness	AU3	In the left front door wiring harness, driver door, approximately 6 cm (2.36 in) from the driver outside rearview mirror breakout	—	—
J502	Driver Door Wiring Harness	DE5	In the left front door wiring harness, driver door, approximately 4 cm (2 in) from the left front door speaker breakout	Door Harness Routing - Driver Door	—
J600	Passenger Door Wiring Harness	AU3/DE5/A31	In the right front door wiring harness, front passenger door, approximately 4 cm (2 in) from the passenger outside rearview mirror breakout	Door Harness Routing - Passenger Door	—
J601	Passenger Door Wiring Harness	AU3	In the right front door wiring harness, front passenger door, approximately 5 cm (2 in) from the passenger outside rearview mirror breakout	—	—
J901	Right Rear Cargo Door Wiring Harness	Cargo/ Passenger + AU3	In the rear cargo door wiring harness, approximately 4 cm (1.5 in) from the X902 breakout	Door Harness Routing - Passenger Rear - Passenger/Cargo	—
J902	Right Rear Cargo Door Wiring Harness	Cargo/ Passenger + C49	In the right rear door wiring harness, right rear cargo door, approximately 12 cm (4.7 in) from the X902 breakout	Door Harness Routing - Passenger Rear - Passenger/Cargo	—

Code	Name	Option	Location	Locator View	Connector End View
JX200	Instrument Panel Wiring Harness	—	In the instrument panel wiring harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX250	Instrument Panel Harness Routing - Rear of Instrument Panel	JX200 Splice Pack
JX250	Instrument Panel Wiring Harness	—	In the instrument panel wiring harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX200	Instrument Panel Harness Routing - Rear of Instrument Panel	JX250 Splice Pack
JX347	Body Wiring Harness	—	In the body wiring harness, left side of the passenger compartment, attached to the lower left B-pillar part of G347	• Body Harness Routing - Left Front Passenger Compartment - Cargo • Body Harness Routing - Left Front Passenger Compartment - Cutaway • Body Harness Routing - Left Front Passenger Compartment - Passenger	JX347 Splice Pack
JX348	Body Wiring Harness	—	In the body wiring harness, right side of the passenger compartment, attached to the lower right B-pillar part of G348	Body Harness Routing - Right Front Passenger Compartment	JX348 Splice Pack

Description and Operation

Power Mode Description and Operation

Serial Data Power Mode Master

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master (PMM). This vehicles PMM is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is usefull to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The PMM will also activate relays and other direct outputs of the PMM as needed. The PMM determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the PMM serial data message does not match what the individual module can see from its own connections.

The PMM receives ignition switch signals to identify the operators desired power mode. The PMM Power Mode Parameters table below illustrates the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

PMM Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out/ACC	Inactive	Inactive
Off Key IN	Off	Key In/Off	Inactive	Inactive
Accessory	Accessory	Key Out/ACC	Active	Inactive

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The body control module (BCM) uses the discrete ignition switch inputs Run/Crank Ignition 1 Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The RAP relay remains on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation 5-543* for more information on the retained accessory power (RAP) function.

BCM Awake/Sleep States

The body control module (BCM) is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power (RAP)

The retained accessory power (RAP) system allows specific vehicle functions to operate for a specific amount of time after the ignition switch is turned OFF. The BCM monitors the ignition switch position, battery condition, and each door ajar/open switch status to determine whether RAP should be initiated or terminated. RAP is controlled with 2 different methods; serial data and relay control. Some modules receive a RAP message over the serial data circuits. Serial data controlled RAP is deactivated as required by their modules RAP power mode operation. Other subsystems are activated directly by the BCM through a RAP relay. Components and systems that are active in RAP are also activated anytime the ignition is any position other than OFF regardless of the door switch signals. The RAP relay is located in the body fuse block, is grounded at G302, and is controlled by the rap relay coil control circuit from the BCM.

Relay Controlled RAP

The BCM keeps the RAP relay energized during all power modes, except Off-Awake and Crank. The relay is also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled RAP will end when one of the following conditions is met:

- The BCM receives an input from any door ajar switch indicating the opening of any door after the ignition key is out of the ignition.

Important: If the BCM is receiving any door ajar signal from those switches when the ignition key is turned OFF, RAP will not initiate.

- The BCM internal timer for the RAP expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

The power window system is powered by the RAP relay during the retained accessory power (RAP) power mode.

Serial Data Controlled RAP

RAP systems controlled by serial data are as follows:

Radio
Radio RAP activation/termination is the same as relay operation with 1 exception; the only door switch that will turn off the radio during RAP is the driver door open switch.

Section 6

Safety and Security

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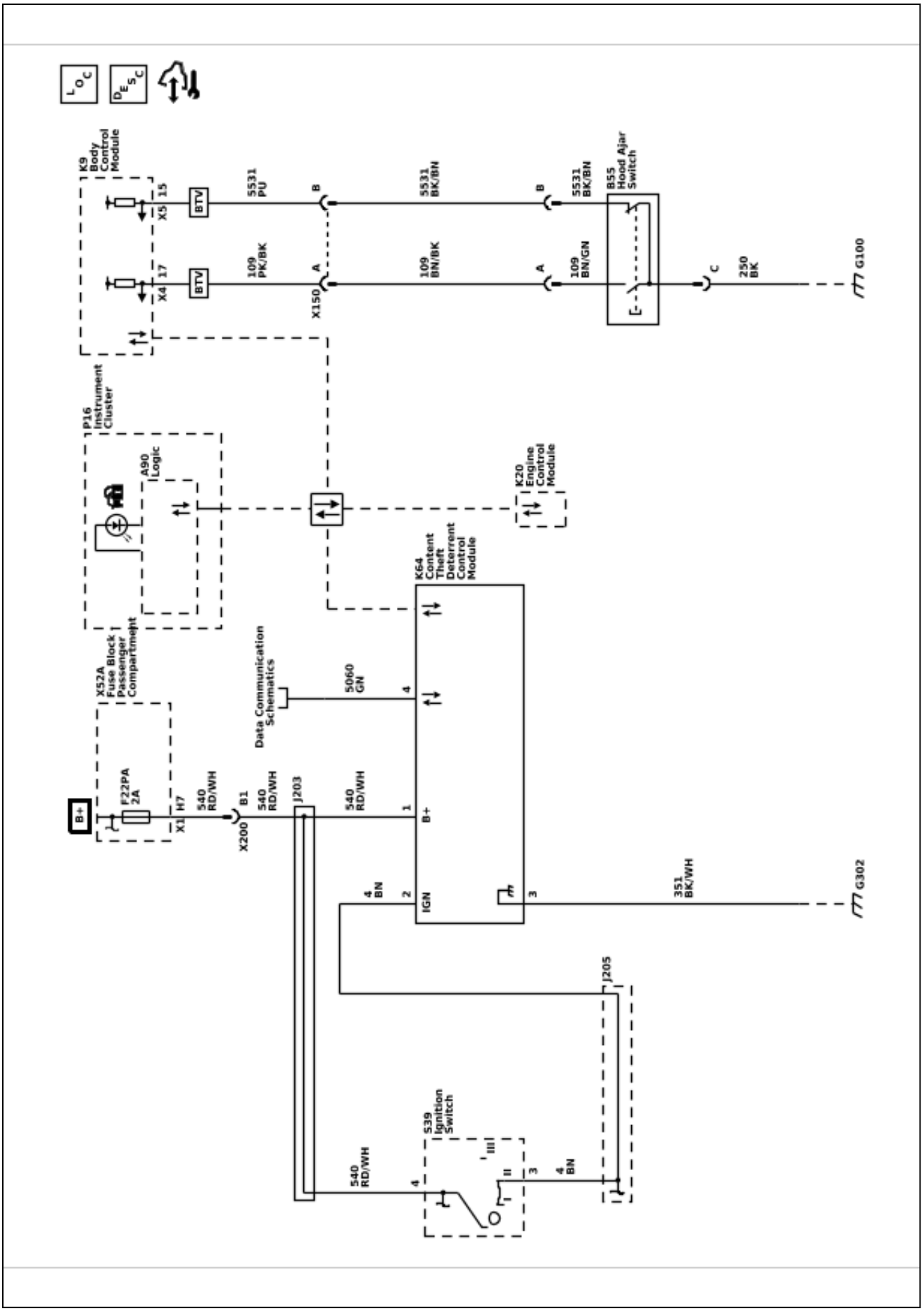
Safety and Security

Immobilizer

Schematic and Routing Diagrams

Immobilizer Schematics (Immobilizer)



Description and Operation

Immobilizer Description and Operation

The immobilizer system functions are provided by the theft deterrent module (TDM) and the engine control module (ECM). When an ignition key is inserted into the ignition lock cylinder and the ignition is switched ON, the transponder embedded in the head of the key is energized by the exciter coil surrounding the ignition lock cylinder. This exciter coil is part of the TDM. The energized transponder transmits a signal that contains its unique value, which is received by the TDM. The TDM then compares this value to a value stored in memory. If the values match, the TDM will send the prerelease password via the serial data circuit to the ECM. If the transponders unique value is incorrect, the TDM will send the fuel disable password to the ECM.

When the ECM receives the TDM prerelease password, the ECM will challenge the password. The ECM sends this challenge back to the TDM via the serial data circuit. Both the ECM and TDM perform a calculation on this challenge. If the calculated response from the TDM equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The components of the theft system are as follows:

- TDM
- ECM
- Ignition key (Transponder)
- Security indicator

Theft Deterrent Module (TDM)

Vehicles with steering column mounted ignition switches have the exciter integral with the theft deterrent module (TDM), which is located within the steering column. The TDM can learn up to 10 keys (transponder values).

The TDM uses the following inputs:

- Battery voltage
- Ignition switched voltage
- Ground circuit

The theft deterrent control module uses the following outputs:

- Password exchange
- Challenge/response with the engine control module (ECM)

When an ignition key is inserted into the ignition lock cylinder and the ignition is switched ON, the transponder embedded in the head of the key is energized by the exciter coils surrounding the ignition lock cylinder. The energized transponder transmits a signal that contains its unique value, which is received by the TDM. The TDM then compares this value to the learned key code stored in memory. The TDM then performs one of the following functions:

- If the transponder value matches the values stored in the TDM memory, the TDM will send the prerelease password to the ECM via the serial data circuit.
- If the transponders unique value does not match the value stored in the TDM, the TDM will send the fuel disable message to the ECM via the serial data circuit.
- If the TDM is unable to measure the ignition key transponder value, the TDM will not send any messages to the ECM.

Engine Control Module (ECM)

When the engine control module (ECM) receives the theft deterrent module (TDM) prerelease password, the ECM will challenge the password. The ECM sends this challenge back to the TDM via the serial data circuit. Both the ECM and TDM perform a calculation on this challenge. If the calculated response from the TDM equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The ECM will disable vehicle starting if any of the following conditions occur:

- The prerelease password is invalid.
- The fuel disable password is sent by the TDM.
- No passwords are received. There is no communication with the TDM.
- The TDM calculated response to the challenge does not equal the calculation performed by the ECM.

The Ignition Key (Transponder)

Note: The ignition key will be stamped with a + or a + surrounded by a circle. This symbol only identifies the key as a PassKey III+ transponder key and is not a reliable way to determine if a particular key is the correct key for a vehicle. Service parts may have a different stamped symbol than the production part. The only way to determine the proper key for a vehicle is by referencing the parts catalog.

The ignition key for PassKey III+ (PK3+) equipped vehicles is a standard ignition key with a transponder located in the plastic head of the key. The transponder value is fixed and unable to be changed. The immobilizer system uses the ignition key transponder value to determine if a valid ignition key is being used to start the vehicle. There are approximately 3 trillion possible transponder values. There are no visible electrical contacts. The immobilizer system use the following types of ignition keys:

Master Keys
Master keys have a black plastic head for full access operation of the vehicle. Master keys may perform the following functions:

- Start the vehicle.
- Lock/unlock all of the door locks and rear compartment.
- Lock/unlock all of the storage compartments.

Valet Keys
Important: Valet keys are NOT standard equipment on all GM vehicle lines.

Valet keys have a gray plastic head and are for restricted operation of the vehicle. Valet keys may perform the following functions:

- Start the vehicle.
- Lock/unlock all of the door locks.

Fleet Keys
Important: Fleet keys are NOT standard equipment on all GM vehicle lines.

Fleets keys allow full access to the vehicle just as a master key would. However, unlike a master key which may only learn 10 keys to a particular vehicle, an unlimited number of fleet keys may be learned to the vehicle. Fleet keys are only used in vehicles configured for fleet use with RPO 6E2 or 6E8.

- Start the vehicle.
- Lock/unlock all of the door locks and rear compartment.
- Lock/unlock all of the storage compartments.

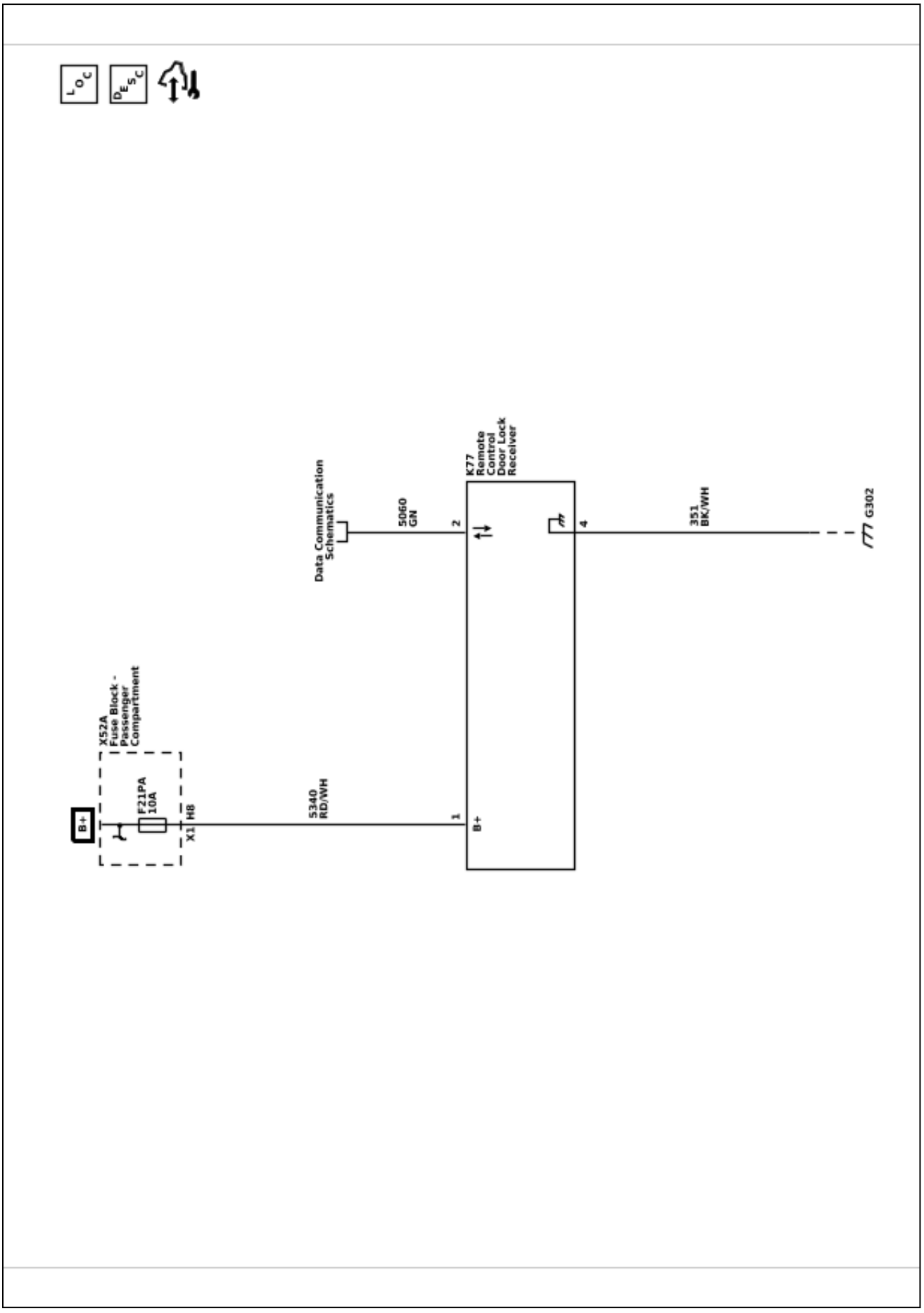
Security Indicator

The theft deterrent module (TDM) can command the instrument panel cluster (IPC) to illuminate the security indicator only when the ignition key is in the ON position. The TDM will command the security indicator be illuminated any time a fault is noted in the immobilizer system and when the engine starting is disabled.

Remote Functions

Schematic and Routing Diagrams

Remote Function Schematics (Keyless Entry (ATG / UJM))



Description and Operation

Front Side Door Access Control Transmitter Description and Operation ((Keypad Accessory))

Front Side Door Access Control Transmitter Description and Operation

The Front Side Door Access Control Transmitter is an accessory offered to be used as a vehicle entry device. Similar to the Keyless Entry Transmitter, the Front Side Door Access Control Transmitter will send a radio frequency signal to the Remote Control Door Lock Receiver. Next, the Remote Control Door Lock Receiver sends a signal to the Body Control Module (BCM) via LIN communication. The BCM will interpret this signal and either lock or unlock the vehicle as a result. A low transmitter battery or radio frequency interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High radio frequency traffic areas, such as gas stations that use pay-at-the-pump radio frequency transponders, may also cause interference that could lead to a malfunction.

Like the Keyless Entry Transmitter, the Front Side Door Access Control Transmitter is programmed to the vehicle's Body Control Module. This means the Front Side Door Access Control Transmitter will populate one of the 8 programmable spaces in the BCM for Keyless Entry Transmitters. The Front Side Door Access Control Transmitter will need to be reprogrammed in the event of BCM replacement. This can only be achieved with the Master Code. If the Master Code is not retrievable, a new Front Side Door Access Control Transmitter with accompanying wallet card will need to be programmed to the new BCM.

The Front Side Door Access Control Transmitter has 5 buttons depicting numbers from 0 to 9. Each button represents a character of a 5 digit code that the vehicle owner may program, which will be referred to as a personal code. The user has 3 attempts to input the correct access code before the Front Side Door Access Control Transmitter enters lockout mode for 1 minute. This will occur up to 2 more times if the incorrect access code is entered repeatedly. After that, any additional 3 attempts will cause the Front Side Door Access Control Transmitter to enter lockout mode for 23 minutes. There is an LED light at the top of the Front Side Door Access Control Transmitter that provides feedback to the user. Each Front Side Door Access Control Transmitter is sold with a wallet card that contains a master code that may be used for keyless entry as well as programming a personal code. The master code will always allow operation of the Front Side Door Access Control Transmitter and may be used to program a new personal code. Entering the 5 digit access code will unlock the driver door. Pressing the 3/4 key within 5 seconds of entering the 5 digit access code with unlock all doors. Pressing the 7/8 and 9/0 button will lock all doors. To change the personal code, refer to the wallet card included with the Front Side Door Access Control Transmitter.

The Front Side Door Access Control Transmitter contains a button cell battery that is not serviceable. Once the battery exceeds the expected lifetime, the Front Side Door Access Control Transmitter will need to be replaced. A new Front Side Door Access Control Transmitter will come with new wallet card.

Keyless Entry System Description and Operation

The keyless entry system is a vehicle entry device. The keyless entry system is used in conjunction with the body control module (BCM) to remotely activate certain vehicle features. Keyless entry will lock/unlock the doors when a corresponding button on the keyless entry transmitter is pressed. This is accomplished by the transmitter sending a radio frequency to the remote control door lock receiver (RCDLR). The RCDLR interprets the signal and activates the requested function via a serial data message to the BCM. A low transmitter or vehicle battery or radio frequency (RF) interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High RF traffic areas may also cause interference that could lead to a malfunction. Keyless entry allows you to operate the following components:

- Door locks
- Cargo door unlock
- Vehicle locator/Panic alarm
- Illuminated entry lamps

The keyless entry system has the following components:

- Keyless entry transmitters
- BCM
- RCDLR

Keyless Entry Transmitters

The keyless entry transmitter are used to lock and unlock the vehicle doors from a distance of up to 65 feet (20 m) away. Up to 8 transmitters may be programmed to a single vehicle.

OnStar® Remote Link

A vehicle operator may have the ability to perform some of the keyless entry functions using applications on personal devices such as smart phones. Refer to *OnStar Description and Operation 2-8*.

Remote Control Door Lock Receiver (RCDLR)

The remote control door lock receiver (RCDLR) is a multifunction module that operates both the keyless entry system as well as the tire pressure monitoring (TPM) system. The RCDLR has an internal antenna that is used to receive radio frequency (RF) communications sent by the keyless entry transmitters. When an RF message is received from a keyless entry transmitter, the RCDLR interprets this signal and will request via serial data that the body control module (BCM) perform the specific function, i.e. door lock, door unlock, or vehicle locate. The RCDLR also receives RF signals from the TPM sensors located at each wheel.

Unlock Driver Door Only

Momentarily press the transmitter UNLOCK button in order to perform the following functions:

- Unlock only the driver door.
- Illuminate the interior lamps for a determined length of time, or until the ignition is turned ON.
- Flash the exterior lights, if enabled through personalization.

Unlock All Doors – Second Operation

Momentarily press the transmitter UNLOCK button a second time, within 5 seconds of the first press, to perform the following functions:

- Unlock the remaining doors.
- Unlock the cargo doors.

Cargo Door Unlock

Momentarily press the transmitter cargo door unlock button a second time, within 5 seconds of the first press, to perform the following function:

Unlock only the cargo doors.

Lock All Doors

Press the transmitter LOCK button to perform the following functions:

- Lock all vehicle doors.
- Immediately turn OFF the interior lamps.
- Flash the exterior lights, if enabled through personalization.
- Chirp the horn, if enabled through personalization.

Vehicle Locator/Panic Alarm

A single press of the panic button performs the following functions. Some functions may be dependent on personalization settings:

- Pulse the horn three times.
- Flash the exterior lamps three times.

A press and hold of the panic button performs the following functions:

- Illuminate the interior lamps.
- Pulse the horn and flash the exterior lamps for 30 second or until the following conditions occur:
  - The panic button is pressed.
  - The ignition switch is turned to the RUN position with a valid key.

Remote Vehicle Start (RVS) – if equipped

The remote vehicle start (RVS) function allows engine starting while not in the vehicle. It also allows the vehicle HVAC system and other vehicle systems to enable, providing a comfortable vehicle upon entry. RVS functions have an operating range of up to 195 feet, depending on conditions. The RVS sequence begins by pressing and releasing the lock button and then pressing and holding the RVS buttons on the keyless entry transmitter. The turn signal lamps will illuminate to indicate the vehicle has received the remote start request. Each time an RVS is performed, the vehicle doors are locked, however they may then be unlocked/locked with the transmitter or vehicle key at any time. Once activated, the engine is allowed to run for 10 minutes. The RVS time may be extended by an additional 10 minute by again pressing and releasing the lock button and then pressing and holding the RVS buttons on the transmitter. This feature is called a RVS continue and allows a maximum of 20 minutes of engine running. If the RVS continue is performed at 7 minutes into the initial 10 minute time-out, a total of 17 minutes of engine running would occur. The RVS event may be suspended at any time by pressing only the RVS button on the transmitter or by entering the vehicle and turning ON the hazard lamps.

In between ignition cycles, only two RVS events may occur or be attempted. Once two events or attempts have been made, future RVS events will be suspended until the vehicle is started using the ignition.

Enable/Disable RVS

Using the driver information center (DIC), RVS may be enabled or disabled as a part of vehicle personalization. Refer to the vehicle owners manual for more information.

Hood Ajar Switch

The hood switch provides status of the hood to the BCM for RVS purposes. The switch is integrated into the hood latch assembly. The hood ajar switch provides 2 separate inputs to the BCM. These separate inputs allow the BCM to actively monitor for a hood ajar switch fault.

RVS Circuit Description

The RCDLR receives a signal from the keyless entry transmitter indicating a RVS request. A message is then sent to the BCM which determines if a crank request message will be sent to the ECM to allow engine starting. To determine if conditions are correct for an RVS event, the BCM will ensure the following conditions are met:

- All vehicle doors are closed
- A valid hood ajar switch closed signal is present
- The doors are locked
- The hazard switch is OFF
- The vehicle power mode is correct
- No content theft deterrent (CTD) alarm triggers are present
- The vehicle is not in valet mode (if equipped)

When the BCM determines all conditions meet those required for an RVS event, a message is sent via serial data to the ECM. The ECM relies on the RVS message from BCM to enable RVS when the crank request signal is received. If the ECM does not receive a valid RVS message, it will not attempt to start the engine. While the ECM is in RVS mode it will suspend engine operation if any of the following additional conditions occur:

- Vehicle speed is greater than 0
- Transmission is not in PARK
- Excessive engine coolant temperature
- Low oil pressure
- The malfunction indicator lamp (MIL) is commanded ON
- Engine crank time is greater than 30 seconds
- Excessive engine speed
- Accelerator pedal position too high
- Remote start timer equals 0
- Immobilizer system indicates tamper

Keyless Entry Personalization

Vehicle lock/unlock functions and remote vehicle start (RVS) settings may be personalized. For functional descriptions and personalization instructions, refer to the vehicle owners manual.

Rolling Code

The Keyless Entry System uses rolling code technology. Rolling code technology prevents anyone from recording the message sent from the transmitter and using the message in order to gain entry to the vehicle. The term “rolling code” refers to the way that the Keyless Entry System sends and receives the signals. The transmitter sends the signal in a different order each time. The transmitter and the remote control door lock receiver (RCDLR) are synchronized to the appropriate order. If a programmed transmitter sends a signal that is not in the order that the RCDLR expects, then the transmitter is out of synchronization. This occurs after 256 presses of any transmitter button when it is out of range of the vehicle.

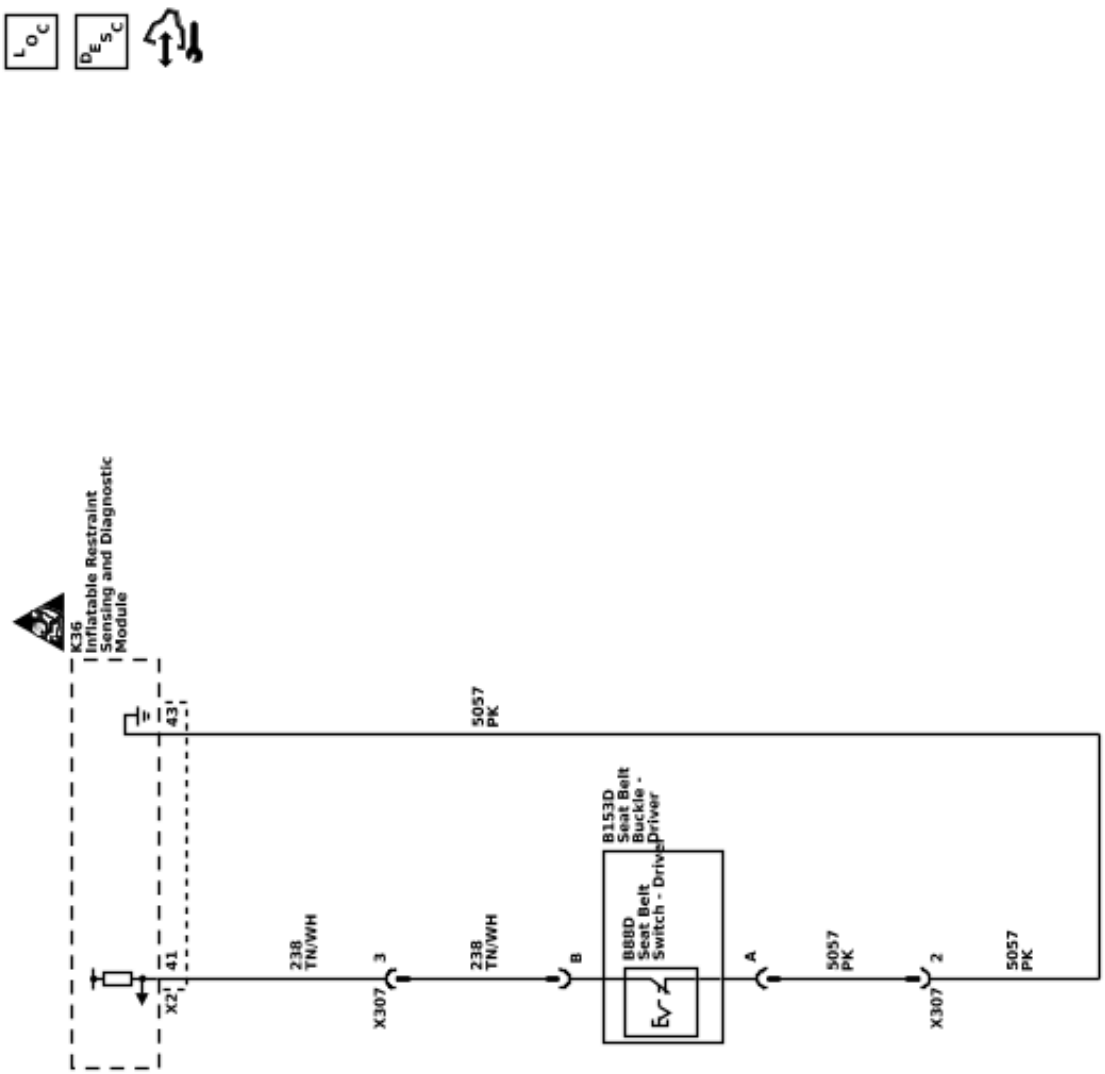
Automatic Synchronization

The keyless entry transmitters do not require a manual synchronization procedure. If needed, the transmitters automatically re-synchronize when any button on the transmitter is pressed within range of the vehicle. The transmitter will operate normally after the automatic synchronization.

Seat Belts

Schematic and Routing Diagrams

Seat Belt Schematics (Seat Belt Schematics)



6600250

Description and Operation

Seat Belt System Description and Operation

Restraint System

Seat belts are the primary means of occupant restraint.

Seat belts help to keep occupants inside the passenger compartment and to gradually reduce the impact forces.

All seat belt retractors have emergency locks. The retractors remain unlocked during normal operation and under normal driving conditions. The retractors remain unlocked during normal conditions in order to allow free movement of the upper body of each occupant.

A pendulum locks the seat belt webbing into position. The pendulum causes a locking bar to engage a cog on the spool of the retractor mechanism when the following conditions occur:

- A rapid extraction of the seat belt webbing from the retractor
- An abrupt change in the vehicle speed
- An abrupt change in the vehicle direction
- Operation of the vehicle on a steep upgrade
- Operation of the vehicle on a steep downgrade

The seat belts, except for the driver seat belt, have an automatic locking feature, or a cinch feature. The cinch feature is recommended for securing a child seat. The cinch feature is engaged by fully extending the seat belt from the retractor. Once engaged, the seat belt can retract, but cannot be extended again until the cinch feature is cancelled. The cinch feature is cancelled when the seat belt has fully retracted.

This vehicle is also equipped with a supplemental inflatable restraint (SIR) system. Refer to *Supplemental Inflatable Restraint System Description and Operation 6-19* for a description of the seat belt retractor pretensioner.

Front Seat Belt System

The front seat belt system includes the following components:

- The driver and passenger seat belt buckles, attached to the inboard side of the seat frame
- The driver and passenger seat belt retractor pretensioners
- The driver and passenger seat belt switch located in the seat belt buckles

Seat Belt System Circuit Description

There are two fasten safety belt indicators for this vehicle. The driver fasten safety belt indicator is located on the instrument panel cluster (IPC) and the passenger fasten safety belt indicator is located in the passenger ON/OFF indicator. Both indicators are controlled by the IPC at the request of the inflatable restraint sensing and diagnostic module (SDM). The driver indicator, when initiated, will illuminate for 20 seconds followed by 55 seconds of flashing. Audible warnings will initiate simultaneously with visual warnings and last for 8 seconds. Subsequently, similar events will occur until the seat belts are buckled or the ignition is returned to the OFF position.

The driver fasten safety belt indicator will illuminate when any of the following occur:

- The driver seat belt is unbuckled while the ignition is ON.
- The driver seat belt remains unbuckled and vehicle speed is greater than 8 km/h (5 mph).
- Three minutes after previous seat belt status reminder event
- The IPC performs the displays test at the start of each ignition cycle.

Important: The front passenger seat is equipped with a passenger presence system (PPS), which detects an occupant. If the PPS detects an empty front passenger seat, then the passenger fasten safety belt indicator will be disabled.

The passenger fasten safety belt indicator will illuminate when any of the following occur:

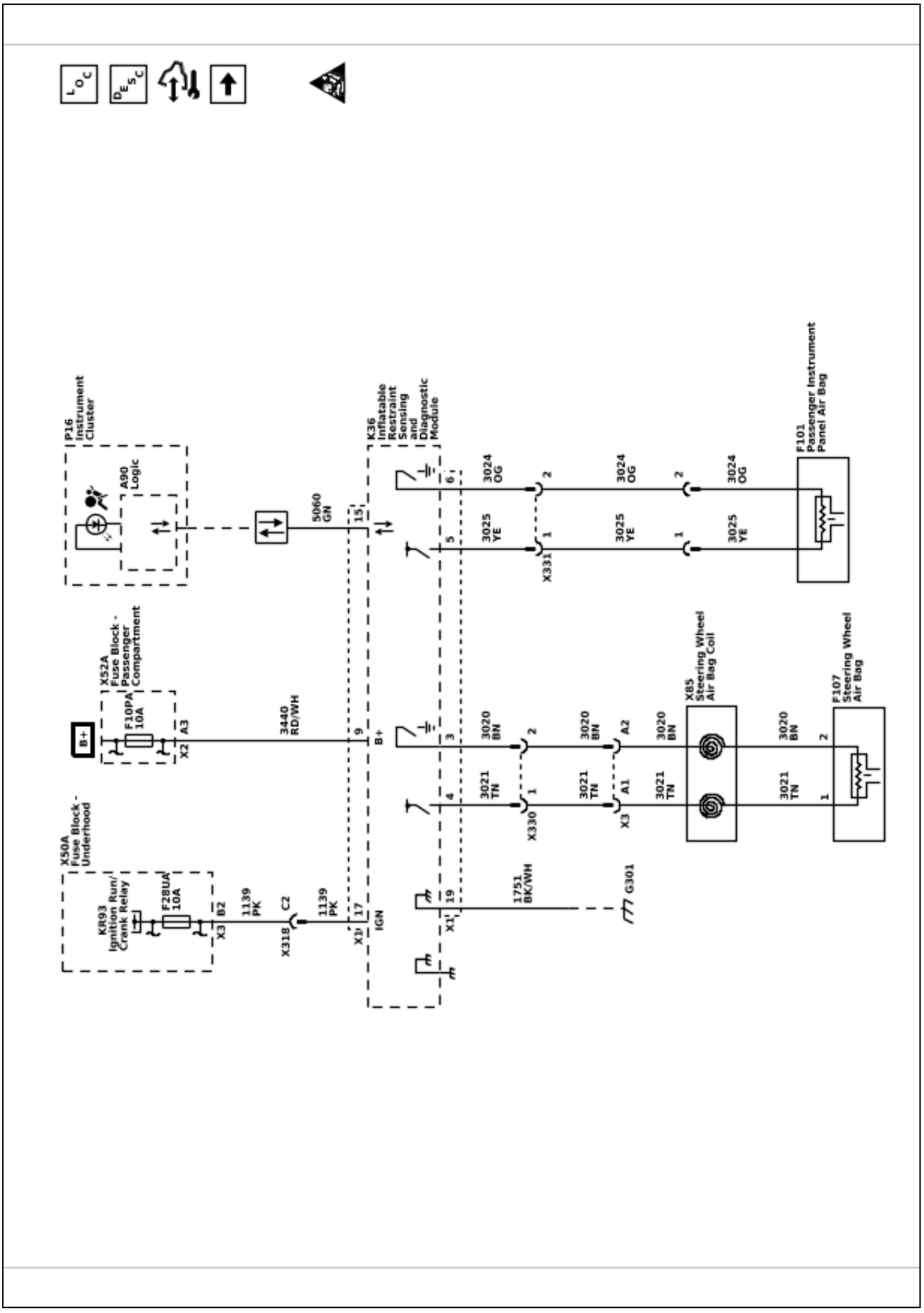
- Twenty-five seconds after the ignition is ON and the front passenger seat belt remains unbuckled with passenger present
- The front passenger seat belt remains unbuckled with passenger present and vehicle speed is greater than 5 mph (8 km/h).
- Three minutes after previous seat belt status reminder event
- The IPC performs the displays test at the start of each ignition cycle.

Refer to **Symptoms - Seat Belts** in order to diagnose faults of the fasten safety belt indicators.

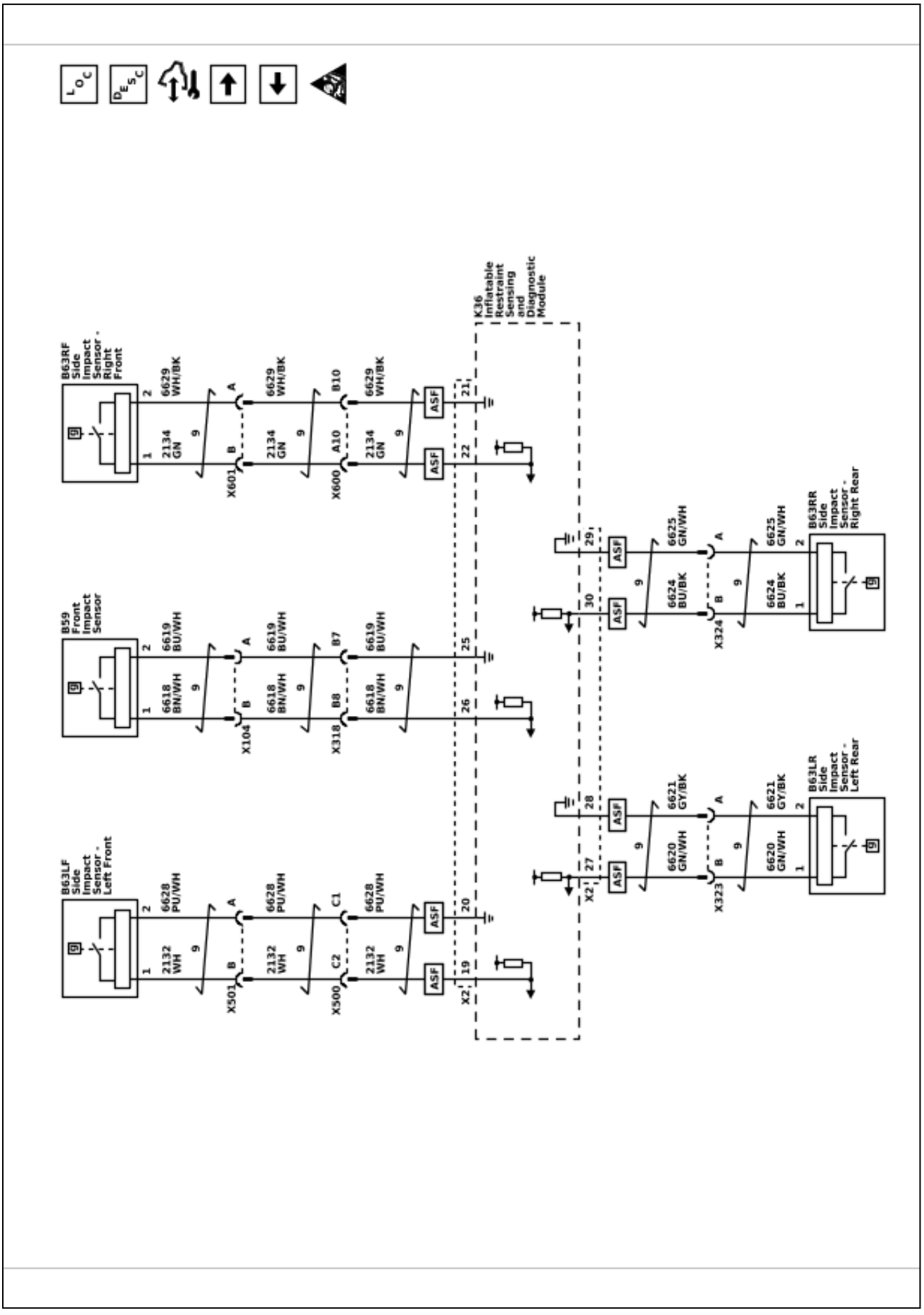
Supplemental Restraints

Schematic and Routing Diagrams

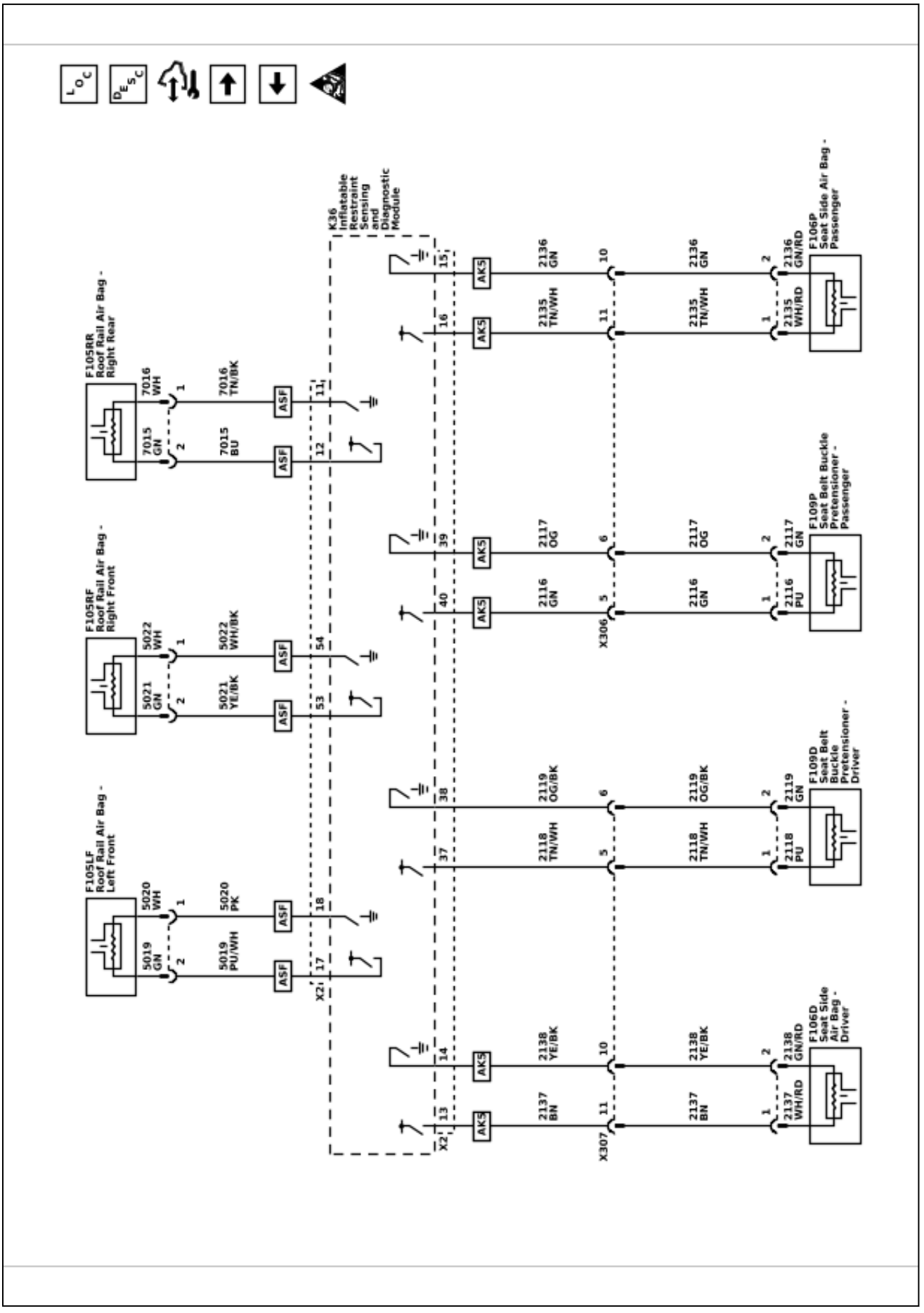
SIR Schematics (Module Power, Ground, Serial Data, and Front Air Bags)



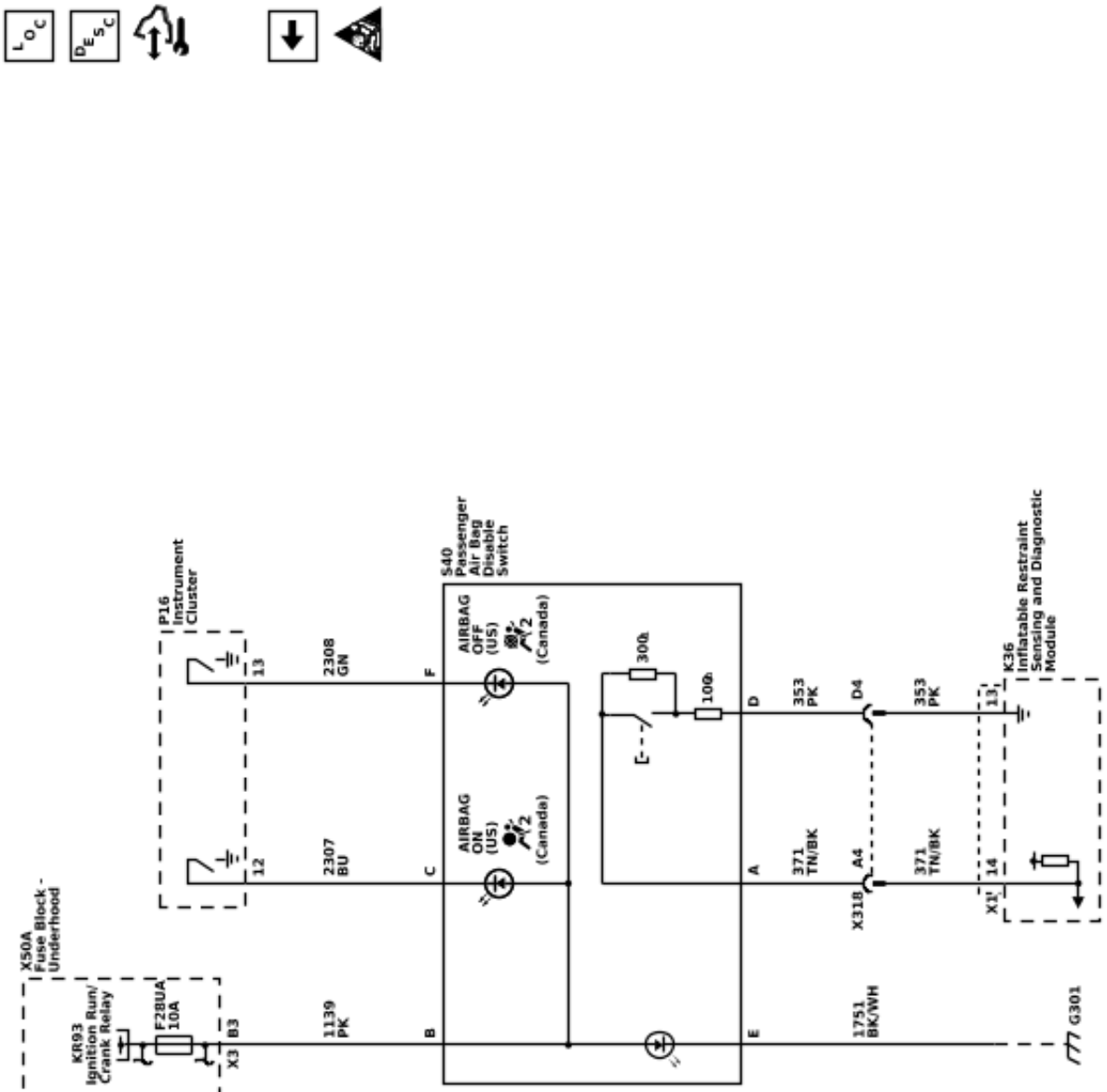
SIR Schematics (Impact Sensors)



SIR Schematics (Roof Rail Air Bags, Seat Side Air Bags, and Seat Belt Pretensioners)


6600253
K36 Inflatable Restraint Sensing and Diagnostic Module
F105LF Roof Rail Air Bag - Left Front
F105RF Roof Rail Air Bag - Right Front
F105RR Roof Rail Air Bag - Right Rear
F106D Seat Side Air Bag - Driver
F106P Seat Side Air Bag - Passenger
F109D Seat Belt Buckle Pretensioner - Driver
F109P Seat Belt Buckle Pretensioner - Passenger
X2
X306
X307
ASF
AKS

SIR Schematics (Passenger Air Bag Disable Switch (C99))



Description and Operation

Supplemental Inflatable Restraint System Description and Operation

The supplemental inflatable restraint (SIR) system, comprised of the inflatable restraint sensing and diagnostic module (SDM), impact sensors, air bags, and seat belt pretensioners, supplements the protection offered by the seat belts. The SDM determines the severity of a collision using data collected from impact sensors located at strategic points on the vehicle. When the SDM detects a collision, it processes the information provided by the sensors to provide the safest combination of air bag and pretensioner deployment. The SDM will deploy the air bags and pretensioners if it detects a collision of sufficient force. If the force of the impact is not sufficient to warrant air bag deployment, the SDM may still deploy the seat belt pretensioners. The SDM contains a sensing device that translates vehicle acceleration to an electrical signal. The SDM compares these signals to the threshold values stored in memory. If the signals exceed the stored threshold value, the SDM will determine the severity of the event and may deploy restraints. The SDM continuously monitors the deployment loops and electrical components for malfunctions. Upon detection of a circuit malfunction, the SDM will set a DTC and illuminate the SIR system air bag malfunction indicator. The steering column and knee bolsters are designed to absorb energy and compress during frontal collisions to limit leg movement and decrease the chance of injury to the driver and passenger.

The supplemental inflatable restraint system utilizes the following components:

- Inflatable Restraint Sensing and Diagnostic Module
- Air Bag Indicator
- Air Bags
- Seat Belt Pretensioners
- Impact Sensors
- Passenger Presence System
- Passenger Air Bag Indicator
- Passenger Air Bag Disable Switch
- Seat Belt Indicators

Inflatable Restraint Sensing and Diagnostic Module
The SDM is the control unit for the SIR system. The SDM contains internal sensors in addition to the external impact sensors. The SDM contains sensor which translate vehicle acceleration into an electrical signal, which may be used by other modules. In the event of a collision, the SDM compares the signals from the internal and external impact sensors to a threshold value stored in memory. When the generated signals exceed the stored value, the SDM will cause current to flow through the appropriate deployment loops to deploy the restraints. The SDM records the SIR system status when a deployment occurs and illuminates the air bag malfunction indicator. The SDM performs continuous diagnostic monitoring of the SIR system electrical components and circuitry when the ignition is on. If the SDM detects a malfunction, a DTC will set and the SDM will command the instrument cluster to illuminate the air bag malfunction indicator, notifying the driver that a malfunction exists. If power is lost during a collision, the SDM maintains a 23 V loop reserve for deployment of the air bags. It is important when disabling the SIR system for servicing or rescue operations to allow the 23 V loop reserve to dissipate, which could take up to 1 minute.

Air Bag Indicator
The SIR system air bag indicator, located in the instrument cluster, is used to notify the driver of SIR system malfunctions and verify that the SDM is communicating with the instrument cluster. When the ignition is turned on, the SDM is supplied with ignition voltage. The instrument cluster will momentarily turn on the SIR system air bag indicator. While the indicator is on, the SDM conducts tests on all SIR system components and circuits. If no malfunctions are detected the SDM will communicate with the instrument cluster through the serial data circuit and command the SIR system air bag malfunction indicator to turn off. The SDM provides continuous monitoring of the air bag circuits by conducting a sequence of checks. If a malfunction is detected the SDM will set a DTC and command the instrument cluster to illuminate the SIR system air bag malfunction indicator via serial data. The presence of an SIR system malfunction could result in non-deployment of the inflatable restraints or deployment in conditions that normally would not warrant deployment. The SIR system air bag malfunction indicator will remain on until the malfunction has been repaired.

Air Bags
The vehicle will contain a number of air bags, depending on vehicle available and optional equipment:

- Steering wheel
- Instrument panel
- Driver seat
- Passenger seat
- Left roof rail
- Right roof rail

To view the locations of the air bags refer to: *Master Electrical Component List 5-505*.

The steering wheel and instrument panel air bag are a single-stage design. The air bags contain a housing, inflatable air bag, an initiating device, a canister of gas generating material and, in some cases, stored compressed gas. Each air bag has a discrete deployment loop to supply current and deploy the air bag. The current passing through the air bags ignite the material in the canister producing a rapid generation of gas and is some cases, the release of compressed gas. The gas produced from this reaction rapidly inflates the air bag. Once the air bag is inflated, it deflates through the air bag vent holes and/or the bag fabric. A shorting bar (if equipped) is located in the connector.

Seat Belt Pretensioners
The vehicle will contain a number of seat belt pretensioners, depending on vehicle available and optional equipment:

- Driver – Seat belt anchor
- Driver – Seat belt retractor
- Passenger – Seat belt anchor
- Passenger – Seat belt retractor

To view the locations of the seat belt pretensioners refer to: *Master Electrical Component List 5-505*.

The seat belt pretensioners consist of a housing, seat belt retractor, seat belt anchor, seat belt webbing, initiator, and a canister of gas generating materials. The initiator is part of the seat belt pretensioner deployment loop. When the vehicle is involved in a collision of sufficient force, the SDM causes current to flow through the seat belt deployment loops to the initiator. Current passing through the initiator ignites the material in the canister producing a rapid generation of gas. The gas produced from this reaction deploys the seat belt pretensioners which removes the slack in the seat belts. Depending on the severity of the collision, the seat belt pretensioners may deploy without the frontal inflator modules deploying, or they will deploy immediately before the frontal inflator modules deploy. Each seat belt pretensioner connector is equipped with a shorting bar, which shorts the seat belt pretensioner circuitry to prevent unwanted deployment of the seat belt pretensioner when the connector is disconnected.

Impact Sensors
The vehicle will contain a number of impact sensors, depending on vehicle available and optional equipment:

- Front
- Front Left
- Front right
- Door
- Rear Frame Rail

To view the locations of the impact sensors refer to: *Master Electrical Component List 5-505*.

The impact sensors contain a sensing device which monitors vehicle acceleration to detect collisions that are severe enough to warrant air bag deployment. The impact sensors are not part of the deployment loop, but instead provide input to the SDM.

Passenger Presence System
The passenger presence system is used to monitor the type of occupant that is sitting in the front passenger seat and communicate the status to the inflatable restraint sensing and diagnostic module. The inflatable restraint sensing and diagnostic module then uses this information to determine whether to enable or suppress the deployment of the passenger instrument panel air bag. The passenger presence system consists of an electronic control module, a sensor mat in the seat, a harness, and passenger air bag ON/OFF indicators.

Passenger Air Bag Indicator
The passenger air bag indicator identifies the status of the instrument panel air bag. If an occupant is not detected in the passenger seat or the occupant type is not suitable for air bag deployment, the inflatable restraint sensing and diagnostic module will illuminate the passenger air bag OFF indicator. If an occupant is detected in the passenger seat, the inflatable restraint sensing and diagnostic module will illuminate the passenger air bag ON indicator.

Passenger Air Bag Disable Switch
The passenger air bag disable switch provides the means to manually disable the ability for the passenger instrument panel air bag to deploy. The vehicle has a passenger air bag status indicator to inform the driver when the passenger air bag is on or off based on the disable switch position.

Seat Belt Indicators
The seat belt indicators are controlled by the inflatable restraint sensing and diagnostic module. For further information on seat belt indicators refer to: *Seat Belt System Description and Operation 6-13*.

Section 7

Transmission

Shift Lock Control **7-2**
Schematic and Routing Diagrams **7-2**
Shift Lock Control Schematics 7-3
Description and Operation **7-4**
Automatic Transmission Shift Lock Control Description and Operation 7-4

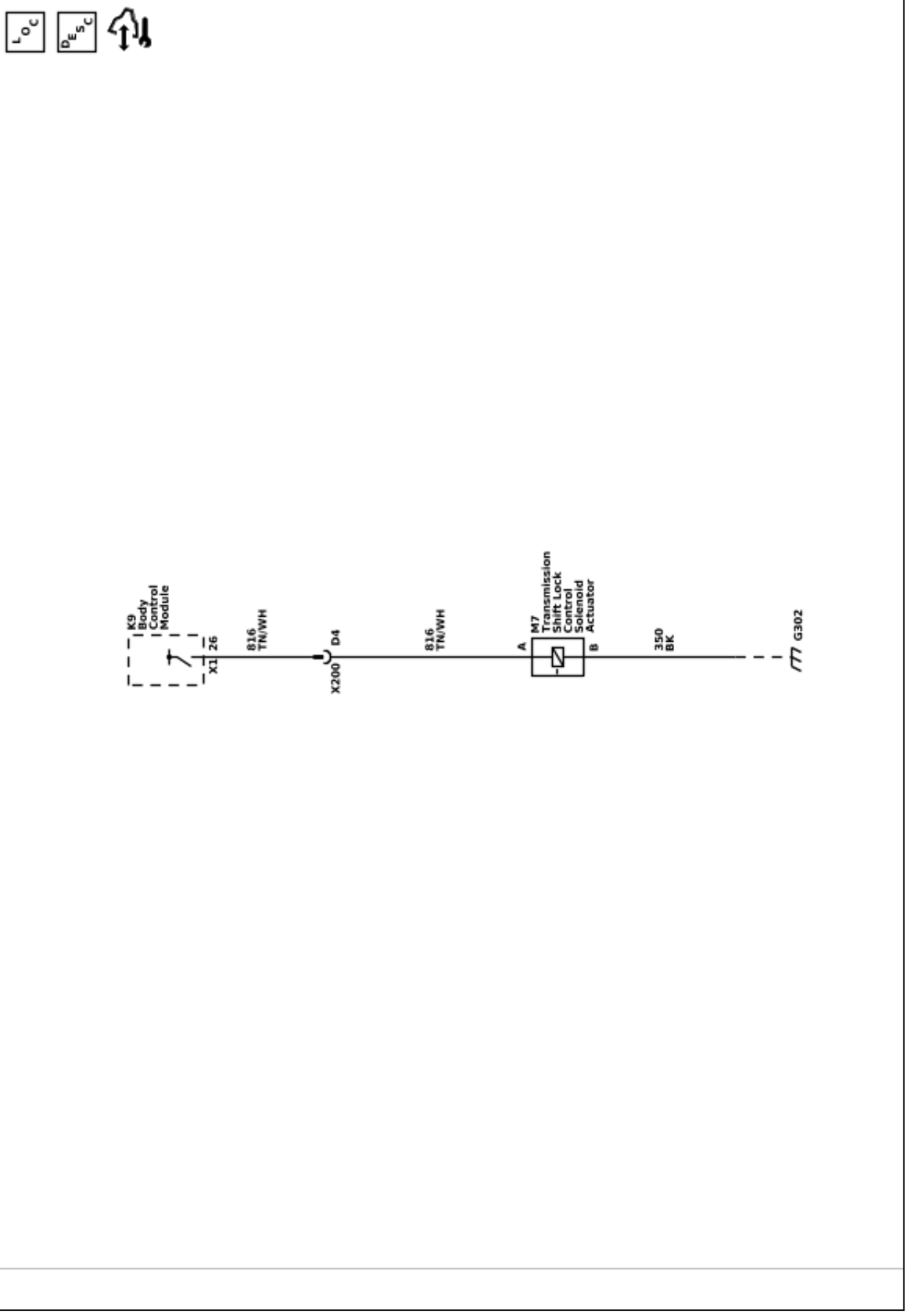
Transmission

Shift Lock Control

Schematic and Routing Diagrams

6600261

Shift Lock Control Schematics (Shift Lock Control)



Description and Operation

Automatic Transmission Shift Lock Control Description and Operation

The automatic transmission shift lock control system is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The automatic transmission shift lock solenoid (serviced as the automatic transmission shift lock actuator), as well as the body control module (BCM) and the engine control module (ECM). The shift lock solenoid is located within the floor shift control assembly with vehicles equipped with floor shift.
- The BCM controls the voltage to the shift lock control solenoid through the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will remove voltage from the shift lock solenoid:
  - The ignition is in the ON position.
  - The engine control module (ECM) sends an input via GMLAN serial data to the BCM indicating the transmission is in the PARK position.
  - The BCM determines the brake pedal is applied according the brake pedal position.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, mechanically locking the shift lever in the PARK position as the solenoid energizes. When the brake pedal is applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. The de-energized solenoid releases the mechanical lock allowing the driver to move the shift lever out of the PARK position. When the transmission is out of the PARK position, the shift lock control solenoid remains de-energized.

Note: If equipped with push button start, the BCM supplies voltage to the automatic transmission shift lock control solenoid, mechanically unlocking the shift lever in the PARK position as the solenoid energizes.

During remote start operation, the BCM will energize the shift lock control circuit, locking the shift lever in the PARK position.

Index

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